

SEQUENCE LISTING

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Henderson, Robert A.
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Retter, Marc W.
Durham, Margarita
Fanger, Gary R.
Vedvick, Thomas S.
Carter, Darrick
Watanabe, Yoshihiro
Peckman, David W.
Cai, Feng
Foy, Teresa M.

<120> COMPOSITIONS AND METHODS FOR THE THERAPY
AND DIAGNOSIS OF LUNG CANCER

<130> 210121.455C17

<140> US

<141> 2001-11-30

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<213> Homo sapiens

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<221> misc_feature

<222> 236, 241

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ttcatctcca gcagagacaa cggaggaggc tcccaccagg acggttctca ttatttatat 180
gttaatatgt ttgtaaactc atgtacagtt ttttttgggg gggaagcaat gggaanggta 240
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aaaaaaaaaaaa 315

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536, 549, 553, 556, 557, 559, 568, 593, 597, 605, 611, 613,
616, 618, 620, 628, 630, 632, 634, 635, 639, 643, 647, 648,
649, 652, 654, 658, 664, 690
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<400> 5
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gcataaagcc aatgtagtcc agtttctaag atcatgttcc aagctaactg aatcccactt 180
caatacacac tcatgaactc ctgatggaac aataacaggc ccaagcctgt ggtatgatgt 240
gcacacttgc tagactcaga aaaaatacta ctctcataaa tgggtgggag tattttgggt 300
gacaacctac tttgcttggc tgagtgaagg aatgatattc atatnttcat ttattccatg 360
gacatttagt tagtgctttt tatataccag gcatgatgct gagtgacact cttgtgtata 420
tntccaaatn ttngtncngt cgtgtcacat atctgaaatc ctatattaag antttcccaa 480
natgangtcc ctggtttttc cagccactt gatcngtcaa ngatctcacc tctgtntgtc 540
ctaaaacctn ctncnnang gttagacngg acctctcttc tcccttcccg aanaatnaag 600
tgtgngaaga nancnncn ccccccctn tncnncctng ccngctnnnc cncntgtngg 660
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<210> 6
<211> 740
<212> DNA
<213> Homo sapiens

<220>
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592, 638, 651, 660, 664, 673, 675, 697, 706, 711, 715, 716,
717, 723, 724, 725, 733
<223> n = A,T,C or G

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catgtttatc ttttattatg tnttgtgaag ttgtgtcttt tcaactaatta cctatactat 120
gccaatattt ccttatatct atccataaca tttatactac atttgtaaga gaatatgcac 180
gtgaaactta acactttata aggtaaaaat gaggtttcca agatttaata atctgatcaa 240
gttcttggtt tttccaaata gaatggactt ggtctgttaa ggggctaagg gagaagaaga 300
agataagggt aaaagttgtt aatgaccaa cattctaaaa gaaatgcaaa aaaaaattta 360
ttttcaagcc ttcgaactat ttaaggaaag caaatcatt tcctanatgc atatcatttg 420
tgagantttc tcantaatat cctgaatcat tcatttcagc tnaggcttca tgttgactcg 480
atatgtcatc tagggaaagt ctatttcag gtccaaacct gttgccatag ttggttaggc 540
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aggggtgtgg gaaaagcttc taacaatctg tagtgtnccg tgttatctgt ncagaaccan 660
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gtnnncaact ccngggagcc 740

<210> 7
<211> 670

1000700.13001

<212> DNA
<213> Homo sapiens

<220>
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<222> 265, 268, 457, 470, 485, 546, 553, 566, 590, 596, 613, 624,
639, 653, 659, 661
<223> n = A,T,C or G

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agcggccccg gctcgatggc cccgtggtgc tcagttagca gcggcccgtc gcgctacgtg 120
cttgggatgc aggagctgtt ccggggccac agcaagaccg cgagttcctg gcgcacagcg 180
ccaagggtgca ctcggtggcc tggagttgcg acggggcgtc cctacctcgg ggtcttcgac 240
aagacgccac gtcttcttgc tgganaanga ccgttgggtca aagaaaacaa ttatcgggga 300
catggggata gtgtggacca ctttgttggc atccaagtaa tcctgacctt tttgttacgg 360
cgtctggaga taaaaccatt cgcattctgg atgtgaggac tacaaaatgc attgccactg 420
tgaacactaa agggggagaac attaatatct gctggantcc tgatggggcan accattgctg 480
tagcnacaag gatgatgtgg tgactttatt gatgccaaga aaccccgttc caaagcaaaa 540
aaacanttcc aanttcgaag tcaccnaaat ctcttgggaa aatgaacatn aatatnttct 600
tcctgacaat ggnccttggg tgtntcacat cctcagctnc cccaaaactg aancctgtnc 660
nateccacccc 670

<210> 8
<211> 689
<212> DNA
<213> Homo sapiens

<220>
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<222> 253, 335, 410, 428, 448, 458, 466, 479, 480, 482, 483, 485,
488, 491, 492, 495, 499, 500, 502, 503, 512, 516, 524, 525,
526, 527, 530, 540, 546, 550, 581, 593, 594, 601, 606, 609,
610, 620, 621, 622, 628, 641, 646, 656, 673
<223> n = A,T,C or G

<400> 8
actagtatct aggaatgaac agtaaaagag gagcagttgg ctacttgatt acaacagagt 60
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cacctagcat tgcctactta gccccctgaa ttaacagagc ccaattgaga caaacccctg 180
gcaacaggaa attcaaggga gaaaaagtaa gcaacttggg ctaggatgag ctgactccct 240
tagagcaaag ganagacagc cccattacc aaataccatt tttgcctggg gcttgtgcag 300
ctggcagtggt tcctgccccg gcatggcacc ttatngtttt gatagcaact tcgttgaatt 360
ttcaccaact tattacttga aattataata tagcctgtcc gtttgctgtn tccaggctgt 420
gatatatntt cctagtgggt tgacttttaa aataaatnag gtttantttt ctccccccnn 480
cnntnctncc nntcnctcnn cnntcccccc cncctngtcc tccnnnttn gggggggccn 540
ccccncggn ggacccccct ttgggtccctt agtggagggt natggcccct ggnnttatcc 600
nggcctann tttccccgtn nnaaatgntt cccctccca ntccnccac ctcaanccgg 660
aagcctaagt ttntaccctg ggggtcccc 689

<210> 9
<211> 674
<212> DNA
<213> Homo sapiens

1000700 = 43007

<220>
 <221> misc_feature
 <222> 602, 632, 639, 668
 <223> n = A,T,C or G

<400> 9
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 gaaaaaagcg aggctttttt gccaccttgg taaaggccag ttcactgcta tagaactgct 180
 ataagcctga agggaagtag ctatgagact ttccattttt cttagtcttc ccaataggct 240
 ccttcatgga aaaaggcttc ctgtaataat tttcacctaa tgaattagca gtgtgattat 300
 ttctgaaata agagacaaat tgggcccgcag agtcttcctg tgatttaaaa taaacaaccc 360
 aaagttttgt ttggtcttca ccaaaggaca tactctaggg ggtatgttgt tgaagacatt 420
 caaaaacatt agctgttctg tctttcaatt tcaagttatt ttggagactg cctccatgtg 480
 agttaattac tttgctctgg aactagcatt attgtcatta tcatcacatt ctgtcatcat 540
 catctgaata atattgtgga tttccccctc tgcttgcatc ttcttttgac tcctctggga 600
 anaaatgtca aaaaaaagg tcgatctact cngcaaggnc catctaataca ctgcgctgga 660
 aggaccnct gccc 674

<210> 10
 <211> 346
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 320, 321, 322, 325, 326, 328, 329, 330, 332, 333, 334, 335,
 342
 <223> n = A,T,C or G

<400> 10
 actagtctgc tgatagaaaag cactatacat cctattgttt ctttctttcc aaaatcagcc 60
 ttctgtctgt aacaaaaatg tactttatag agatggagga aaaggtctaa tactacatag 120
 ccttaagtgt ttctgtcatt gttcaagtgt attttctgta acagaaacat atttggaatg 180
 tttttctttt ccccttataa attgtaattc ctgaaatact gctgctttta aaagtccac 240
 tgtcagatta tattatctaa caattgaata ttgtaaatat acttgtctta cctctcaata 300
 aaagggtact tttctattan nnagnngnnn gnnnnataaa anaaaa 346

<210> 11
 <211> 602
 <212> DNA
 <213> Homo sapiens

<400> 11
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 gatgttaagc tttttgaaaa gtttaggtta aacctactgt tgtagatta atgtatttgt 120
 tgcttccctt tatctggaat gtggcattag cttttttatt ttaacctctt ttaattctta 180
 ttcaattcca tgacttaagg ttggagagct aaacactggg atttttggat aacagactga 240
 cagttttgca taattataat cggcattgta catagaaagg atatggctac cttttgttaa 300
 atctgcactt tctaaatata aaaaaaggga aatgaagtta taaatcaatt tttgtataat 360
 ctgtttgaaa catgagtttt atttgcttaa tattagggtt ttgccccttt tctgtaagtc 420
 tcttgggatc ctgtgtagaa ctgttctcat taaacaccaa acagttaagt ccattctctg 480
 gtactagcta caaattcggg ttcatattct acttaacaat ttaaataaac tgaaatatit 540

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<400> 13
cactagtcac tcattagcgt tttcaatagg gctcttaagt ccagtagatt acgggtagtc 60
agttgacgaa gatctggttt acaagaacta attaaatggt tcattgcatt tttgtaagaa 120
cagaataatt ttataaaatg tttgtagttt ataattgccg aaaataattt aaagacactt 180
tttctctgtg tgtgcaaatg tgtgtttgtg atccattttt tttttttttt taggacacct 240
gtttactagc tagctttaca atatgccaaa aaaggatttc tccctgaccc catccgtggt 300
tcaccctctt ttccccccat gctttttgcc ctagtttata acaaagggaat gatgatgatt 360
taaaaaqtaq ttctgtatct tcagtatctt ggtcttccag aaccctctgq ttgggaaggg 420
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<210> 14
<211> 679
<212> DNA
<213> Homo sapiens
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<400> 14						
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ccaagtgc	caaatacctg	cngtncggat	ntaaattcat	cttctggctt	gccgggattg	180
ctgtccntgc	cattggacta	nggctccgat	ncgactctca	gaccanganc	atcttcganc	240
naganactaa	tnatnatnt	tccagcttct	acacaggagt	ctatatcttg	atcggatccg	300
gncccctcnt	gatgctggg	ggcttcctga	gctgctgcg	ggctgtgcaa	gagtcccant	360
gcatgctggg	actgttcctc	ggcttcntct	tggtgata	cgccattgaa	atacctgcgg	420
ccatctgggg	atattccact	ncgatnatgt	gattaaggaa	ntccacggag	ttttacaagg	480
acacgtacaa	cnacctgaaa	accnnggatg	anccccaccg	ggaancnctg	aangccatcc	540
actatgcgtt	gaactgcaat	ggtttggctg	gggnccctga	acaattttaat	cncatacatc	600
tggccccann	aaaggacntn	ctcgannect	tcnccgtgna	attcngttct	gatnccatca	660
cagaagtctc	gaacaatcc					679

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<220>
<221> misc_feature
<222> 105, 172, 176, 179, 189, 203, 212, 219, 221, 229, 231, 238,
242, 261, 266, 270, 278, 285, 286, 298, 311, 324, 337, 350,
363, 384, 391, 395, 405, 411, 424, 427, 443, 448, 453, 455,
458, 463, 467, 470, 479, 482, 484, 493, 499, 505, 518
<223> n = A,T,C or G
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<400> 15
actagtggat aaaggccagg gatgctgctc aacctcctac catgtacagg gacgtctccc 60
cattacaact acccaatccg aagtgtcaac tgtgtcagga ctaanaaacc ctgggttttga 120
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ttaaaaaagg gcctgaaaaa aggggagcca caaatctgtc tgcttcctca cnttantcnt 180
tggcaaatna gcattctgtc tcnttggctg cngcctcanc ncaaaaaanc ngaactcnat 240
cnggccagg aatacatctc ncaatnaacn aaattganca aggcnnntggg aaatgccnga 300
tgggattatc ntccgcttgt tganccttcta agtttctntc ccttcattcn accctgccag 360
ccnagttctg ttagaaaaat gccngaattc naacnccggt tttctactc ngaatttaga 420
tctncanaaa cttcctggcc acnattcnaa ttnanggnca cgnacanatn ccttccatna 480
ancncacccc acntttgana gccangacaa tgactgcntn aantgaaggc ntgaaggaan 540
aactttgaaa ggaaaaaaa ctttgtttcc ggccccttcc aacncttctg tgtnnancac 600
tgccttctng naaccctgga agcccngnga cagtgttaca tgttgttcta nnaaacngac 660
ncttnaatnt cnatcttccc nanaacgatt ncnc 695

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<210> 16
<211> 669
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 299, 354, 483, 555, 571, 573, 577, 642, 651, 662, 667
<223> n = A,T,C or G

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<400> 16
cgccgaagca gcagcgcagg ttgtccccgt ttcccctccc ccttccttcc tccggttgcc 60
ttcccgggcc ccttacactc cacagtcccg gtcccgccat gtcccagaaa caagaagaag 120
agaaccctgc ggaggagacc ggcgaggaga agcaggacac gcaggagaaa gaaggtattc 180
tgcctgagag agctgaagag gcaaagctaa aggccaaata cccaagccta ggacaaaagc 240
ctggaggctc cgacttcctc atgaagagac tccagaaaagg gcaaaagtac tttgactcng 300
gagactacaa catggccaaa gccaacatga agaataagca gctgccaaagt gcangaccag 360
acaagaacct ggtgactggt gatcacatcc ccaccccaca ggatctgccc agagaaagtc 420
ctcgctcgtc accagcaagc ttgcgggtgg ccaagttgaa tgatgctgcc ggggctctgc 480
canatctgag acgcttccct ccctgccccca cccgggtcct gtgctggctc ctgcccttcc 540
tgcttttgca gccangggtc aggaagtggc ncnggtngtg gctggaaagc aaaacccttt 600
cctgttggtg tcccacccat ggagcccctg gggcgagccc angaacttga ncctttttgt 660
tntcttncc 669

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<210> 17
<211> 697
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
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141, 143, 150, 156, 166, 167, 170, 172, 180, 181, 190, 192,
194, 199, 201, 209, 212, 224, 225, 226, 230, 233, 234, 236,
242, 244, 251, 253, 256, 268, 297, 305, 308, 311, 314
<223> n = A,T,C or G

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<221> misc_feature
<222> 315, 317, 322, 324, 327, 333, 337, 343, 362, 364, 367, 368,
373, 384, 388, 394, 406, 411, 413, 423, 429, 438, 449, 450,
473, 476, 479, 489, 491, 494, 499, 505, 507, 508, 522, 523,
527, 530, 533, 535, 538, 539, 545, 548, 550, 552, 555
<223> n = A,T,C or G

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<221> misc_feature
 <222> 562, 563, 566, 568, 572, 577, 578, 580, 581, 591, 594, 622,
 628, 632, 638, 642, 644, 653, 658, 662, 663, 665, 669, 675,
 680, 686, 689
 <223> n = A,T,C or G

<400> 17
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 gacgcgctga ggagannnac gctggcccan ctgccggcca cacacgggga tcntggtnat 120
 gcctgcccan gggancccca ncnetcgga cccatntcac acccgnnccn tncgcccacn 180
 ncctggctcn cncngcccng nccagctcnc gnccccctcc gccnnnetcn ttnnctctc 240
 cncnccctcc ncnacnacct cctaccncng gctccctccc cagccccccc ccgcaancct 300
 ccacnacncc ntcnnncga ancnccnctc gcnctcngcc ccngccccct gccccccgcc 360
 cncnacnncg cgtccccccg cgcncgcngc ctccccccct cccacnacag ncnaccccgc 420
 agncacgcnc tccgcccncn gacgcccann cccgcccgcgc tcaccttcac ggnccnacng 480
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 ccccngcngn angcngtgcg cncangncc gngccgnncn ncacctccg nccnccgcc 600
 cgcgccgtgg gggctcccgc cncgcccgtc antccccccc cntncgecca ctntccgntc 660
 cnnenctcnc gctcngcgcn cgcncncnc cccccc 697

<210> 18
 <211> 670
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 234, 292, 329, 437, 458, 478, 487, 524, 542, 549, 550, 557,
 576, 597, 603, 604, 646, 665
 <223> n = A,T,C or G

<400> 18
 ctggtgtgaa ggggtgcagta cctaagccgg agcggggtag aggcggggccg gcacccccctt 60
 ctgacctcca gtgccgccgg cctcaagatc agacatggcc cagaacttga acgacttggc 120
 gggacggctg cccgccgggc cccggggcat gggcacggcc ctgaagctgt tgctgggggc 180
 cggcgccgtg gcctacggtg tgcgcgaatc tgtgttcacc gtggaaggcg ggcncagagc 240
 catcttcttc aatcggatcg gtggagtgc caggacacta tcctggggccg anggccttca 300
 cttcaggatc cttggttcca gtacccanc atctatgaca ttccgggccag acctcgaaaa 360
 aatctcctcc ctacaggctc caaagacctc cagatggtga atatctccct gcgagtgttg 420
 tctcgaccaa tgctcangaa cttcctaaca tgttccancg cctaagggct ggactacnaa 480
 gaacgantgt tgccgtccat tgtcacgaag tgctcaagaa tttnggtggc caagttcaat 540
 gncctcacnn ctgatcnccc agcggggcca agttanccct ggttgatccc cgggganctg 600
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 tttanccacc 670

<210> 19
 <211> 606
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 506

1000700-13001

<400> 19

<210> 20

<211> 449

<212> DNA

<213> Homo sapiens

<400> 20

actagtaa	aacagcagca	gaaacatcag	tatcagcagc	gtcgcacagca	ggagaatatg	60
cagcgc	gccgaggaga	acccccgctc	cctgaggagg	acctgtccaa	actcttcaa	120
ccaccacagc	cgctgcccag	gatggactcg	ctgctcattg	caggccagat	aaacacttac	180
tgccagaaca	tcaaggagtt	cactgcccaa	aacttaggca	agctcttcat	ggcccaggct	240
cttcaagaat	acaacaacta	agaaaaggaa	gtttccagaa	aagaagttaa	catgaactct	300
tgaagtcaca	ccagggcaac	tcttggaaga	aatatatttg	catattgaaa	agcacagagg	360
atttcttttag	tgtcattgcc	gattttggct	ataacagtgt	ctttctagcc	ataataaaa	420
aaaacaaaat	cttgactgct	tgctcaaaa				449

<210> 21

<211> 409

<212> DNA

<213> Homo sapiens

<400> 21

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caatgataaa	aggaacaagc	tgcctatatg	tggaaacaaca	tggatgcatt	tcagaaactt	120
tatgttgagt	gaaagaacaa	acacggagaa	catactatgt	ggttctcttt	atgtaacatt	180
acagaaataa	aaacagaggc	aaccaccttt	gaggcagtat	ggagtgagat	agactggaaa	240
aaggaaggaa	ggaaactcta	cgctgatgga	aatgtctgtg	tcttcattgg	gtggtagtta	300
tgtggggata	tacatttgtc	aaaattttatt	gaactatata	ctaaagaact	ctgcatttta	360
ttgggatgta	aataatacct	caattaaaaa	gacaaaaaaa	aaaaaaaaaa		409

<210> 22

<211> 649

<212> DNA

<213> Homo sapiens

 $\langle 220 \rangle$

<221> misc feature

<222> 263, 353, 610, 635, 646

<223> n = A, T, C or G

<400> 22

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tgataaggat ggtacttgca tatgggtgaat tactactgtt gacagtttcc gcagaaatcc 120
tatttcagtg gaccaacatt gtggcatggc agcaaagcc aacattttgt ggaatagcag 180
caaatctaca agagaccctg gttgggtttt cgttttggtt tctttgtttt ttcccccttc 240
tcctgaatca gcaggggatgg aangagggta gggaagttat gaattactcc ttccagtagt 300
agctctgaag tgtcacattt aatatcagtt ttttttaaac atgattctag ttnaatgtag 360
aagagagaag aaagaggaag tgttcacttt tttaatacac tgatttagaa atttgatgtc 420
ttatatcagt agttctgagg tattgatagc ttgctttatt tctgccttta cgttgacagt 480
gttgaagcag ggtgaataac taggggcata tataatitttt ttttttgtaa gctgtttcat 540
gatgttttct ttggaatttc cggataagtt caggaaaaca tctgcatgtt gttatctagt 600
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<210> 23

<211> 669

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 642, 661

<223> n = A,T,C or G

<400> 23

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actagtgccg tactggctga aatccctgca ggaccaggaa gagaaccagt tcagactttg 60
tactctcagt caccagctct ggaattagat aaattccttg aagatgtcag gaatgggatc 120
tacctctga cagcctttgg gctgcctcgg cccagcagc cacagcagga ggaggtgaca 180
tcacctgtcg tgccccctc tgtcaagact ccgacacctg aaccagctga ggtggagact 240
cgcaagggtg tgctgatgca gtgcaacatt gagtcggtgg aggagggagt caaacaccac 300
ctgacacttc tgctgaagtt ggaggacaaa ctgaaccggc acctgagctg tgacctgatg 360
ccaaatgaga atatccccga gttggcggct gagctggtgc agctgggctt cattagttag 420
gctgaccaga gccggttgac ttctctgcta gaagagactt gaacaagtgc aattttgcca 480
ggaacagtac cctcaactca gccgctgtca ccgtctctc ttagagctca ctcgggccag 540
gccctgatct gcgctgtggc tgtcctggac gtgctgcacc ctctgtcctt cccccagtc 600
agtattacct gtgaagccct tccctccttt attattcagg anggctgggg gggctccttg 660
nttctaacc 669

```

<210> 24

<211> 442

<212> DNA

<213> Homo sapiens

<400> 24

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actagtacca tcttgacaga ggatacatgc tcccaaaacg tttgttacca cacttaaaaa 60
tcactgccat cattaagcat cagtttcaaa attatagcca ttcatgattt actttttcca 120
gatgactatc attattctag tcctttgaat ttgtaagggg aaaaaaaca aaaacaaaaa 180
cttacgatgc acttttctcc agcacatcag atttcaaatt gaaaattaaa gacatgctat 240
ggtaatgcac ttgctagtac tacacacttt ggtacaacaa aaaacagagg caagaaacaa 300
cggaagaga aaagccttcc tttgttgccc cttaaactga gtcaagatct gaaatgtaga 360
gatgatctct gacgatacct gtatgttctt attgtgtaaa taaaattgct ggtatgaaat 420
gacctaaaa aaaaaaaga aa 442

```

<210> 25

<211> 656

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 330, 342, 418, 548, 579, 608
<223> n = A,T,C or G

<400> 25
tgcaagtacc acacactggt tgaattttgc acaaaaagtg actgtaggat caggtgatag 60
ccccggaatg tacagtgtct tgggtgcacca agatgccttc taaaggctga cataccttgg 120
accctaattg ggcagagagt atagccctag ccagtggtg acatgaccac tccctttggg 180
aggcctgagg tagaggggag tggatatgtg tttctcagtg gaagcagcac atgagtgggt 240
gacaggatgt tagataaagg ctctagttag ggtgtcattg tcatttgaga gactgacaca 300
ctcctagcag ctggtaaagg ggtgctggan gccatggagg anctctagaa acattagcat 360
gggctgatct gattacttcc tggcatcccg ctcactttta tgggaagtct tattagangg 420
atgggacagt tttccatata cttgctgtgg agctctggaa cactctctaa atttccctct 480
attaaaaatc actgccctaa ctacacttcc tccttgaagg aatagaaatg gaactttctc 540
tgacatantt cttggcatgg ggagccagcc acaaatgana atctgaacgt gtccagggtt 600
ctcctganac tcactctacat agaattggtt aaaccctccc ttggaataag gaaaaa 656

<210> 26
<211> 434
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 395
<223> n = A,T,C or G

<400> 26
actagttcag actgccacgc caaccccaga aaatacccca catgccagaa aagtgaagtc 60
ctaggtgttt ccatctatgt ttcaatctgt ccatctacca ggcctcgcga taaaaacaaa 120
acaaaaaac gctgccaggt tttagaagca gttctggtct caaaaccatc aggatcctgc 180
caccagggtt cttttgaaat agtaccacat gtaaaaggga atttggcttt cacttcatct 240
aataactgaa ttgtcaggct ttgattgata attgtagaaa taagtagcct tctgttgtgg 300
gaataagtta taatcagtat tcactctctt gttttttgtc actcttttct ctctaattgt 360
gtcatttgta ctgtttgaaa aatatttctt ctatnaaatt aaactaacct gccttaaaaa 420
aaaaaaaaaa aaaa 434

<210> 27
<211> 654
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 505, 533, 563, 592, 613, 635, 638
<223> n = A,T,C or G

<400> 27
actagtccaa cacagtcaga aacattgttt tgaatcctct gtaaaccaag gcattaatct 60
taataaacca ggatccattt aggtaccact tgatataaaa aggatatcca taatgaatat 120

3007700 = 13004


```

tttatactgc atccttttaca ttagccacta aatacgttat tgcttgatga agacctttca 180
cagaatccta tggattgcag catttcactt ggctacttca taccatgcc ttaaagaggg 240
gcagtttctc aaaagcagaa acatgccgcc agttctcaag ttttcctcct aactccattt 300
gaatgtaagg gcagctggcc cccaatgtgg ygaggtccga acattttctg aattcccatt 360
ttcttgttcg cggctaaatg acagtttctg tcattactta gattccgatc tttcccaaag 420
gtgttgattt acaaagaggc cagctaatag cagaaatcat gaccctgaaa gagagatgaa 480
attcaagctg tgagccaggc agganctcag tatggcaaag gtcttgagaa tcngccattt 540
ggtacaaaaa aaatttttaa gcntttatgt tataccatgg aaccatagaa anggcaaggg 600
aattgttaag aanaatttta agtgtccaga cccanaanga aaaaaaaaaa aaaa 654

```

<210> 28

<211> 670

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 101, 226, 274, 330, 385, 392, 397, 402, 452, 473, 476, 532, 534, 538, 550, 583, 595, 604, 613, 622, 643, 669

<223> n = A,T,C or G

<400> 28

```

cgtgtgcaca tactgggagg atttccacag ctgcacggtc acagccctta cggattgccca 60
ggaaggggag aaagatatgt gggataaact gagaaaagaa nccaaaaacc tcaacatcca 120
aggcagctta ttcgaactct gcggcagcgg caacggggcg gcgggggtccc tgctcccggc 180
gttcccggtg ctctggtgt ctctctcggc agcttttagc acctgncttt ccttctgagc 240
gtggggccag cccccccgc ggcgccacc cacnctcact ccatgctccc ggaaatcgag 300
aggaagatca ttagttcttt ggggacgttn gtgattctct gtgatgctga aaaacactca 360
tataggaat gtgggaaatc ctganctctt tnttatntcg tntgatttct tgtgttttat 420
ttgccaaaat gttaccaatc agtgaccaac cnagcacagc caaaaatcgg acntcngctt 480
tagtccgtct tcacacacag aataagaaaa cggcaaacc accccacttt tnantttnat 540
tattactaan ttttttctgt tgggcaaaa aatctcagga acngccctgg ggccnccgta 600
ctanagttaa ccnagctagt tncatgaaaa atgatgggct ccnctcaat gggaaagcca 660
agaaaaagnc 670

```

<210> 29

<211> 551

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 336, 474, 504, 511, 522, 523, 524, 540, 547

<223> n = A,T,C or G

<400> 29

```

actagtcctc cacagcctgt gaatccccct agacctttca agcatagtga gcggagaaga 60
agatctcagc gtttagccac cttaccatg cctgatgatt ctgtagaaaa ggtttcttct 120
ccctctccag cactgatgg gaaagtattc tccatcagtt ctcaaaatca gcaagaatct 180
tcagtaccag aggtgcctga tgttgacat ttgccacttg agaagctggg accctgtctc 240
cctcttgact taagtcgtgg ttcagaagtt acagcaccgg tagcctcaga ttcctcttac 300
cgtaatgaat gtcccagggc agaaaaagag gatacncaga tgcttccaaa tccttcttcc 360
aaagcaatag ctgatgggaa gaggagctcc agcagcagca ggaatatcga aaacagaaaa 420
aaaagtgaat ttgggaagac aaaagctcaa cagcatttgg taaggagaaa aganaagatg 480

```

```
<210> 32
<211> 673
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 414, 472, 480, 490, 503, 507, 508, 513, 523, 574, 575, 598,  
659, 662, 675  
<223> n = A,T,C or G
```

```
<210> 35
<211> 614
<212> DNA
<213> Homo sapiens
```

<400>	35						
actagtc	caa	cgcgttngcn	aatattcccc	tggtagccta	cttccttacc	cccgaatatt	60
ggtaagatcg	agcaatggct	tcaggacatg	ggttctcttc	tcctgtgato	attcaagtgc		120
tcaactgcatg	aagactggct	tgtctcagtg	tntcaacctc	accagggctg	tctcttggtc		180
cacacctcgc	tcctgttag	tgcgcatga	cagcccccat	canatgacct	tggccaagtc		240
acggtttctc	tgtgggtcaat	gttggtnngc	tgattggtgg	aaagtanggt	ggaccaaagg		300
aagnncnctg	agcagncanc	nccagttctg	caccagcagc	gcctccgtcc	tactnngggtg		360
ttecngtttc	tcctggccct	gngtgggcta	nggcctgatt	cgggaanatg	cctttgcang		420
gaaggganga	taantgggat	ctaccaattg	attctggcaa	aacnatntct	aagattnttn		480
tgctttatgt	ggganacana	tctanctctc	atttnntgct	gnanatnaca	ccctactcgt		540
gntcgancnc	gtcttcgatt	ttcgganaca	cnccantnaa	tactggcggt	ctgttggttaa		600
aaaaaaaaaa	aaaa						614

```
<210> 36
<211> 686
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 222, 224, 237, 264, 285, 548, 551, 628, 643, 645, 665, 674  
<223> n = A,T,C or G
```

```
<400> 36
gtggctggcc cggttctcgc cttctcccca tcccctactt tcctccctcc ctccctttcc 60
ctccctcgtc gactgttgcg tgctggtcgc agactccctg accctccct caccctccc 120
```

```

taacctcggt gccaccggat tgccttctt ttcctgttgc ccagcccagc cctagtgtca 180
gggcgggggc ctggagcagc ccgaggcact gcagcagaag ananaaaaga cacgacnaac 240
ctcagctcgc cagtccggtc gctngcttcc cgccgcatgg caatnagaca gacgccgctc 300
acctgctctg ggcacacgcg acccgtgggt gatttggcct tcagtggcat cacccttatg 360
ggtatttctt aatcagcgcg tgcaaagatg gttaacctat gctacgccag ggagatacag 420
gagactggat tggaacattt ttgggggtcta aaggtctgtt tgggggtgcaa cactgaataa 480
ggatgccacc aaagcagcta cagcagctgc agatttcaca gcccaagtgt gggatgctgt 540
ctcagganat naattgataa cctggctcat aacacattgt caagaatgtg gatttcccca 600
ggatattatt atttgtttac cggggganag gataactgtt tcnctatatt taattgaaca 660
aactnaaaca aaanctaagg aaatcc 686

```

<210> 37

<211> 681

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 7, 10, 11, 19, 25, 32, 46, 53, 77, 93, 101, 103, 109, 115,
123, 128, 139, 157, 175, 180, 192, 193, 194, 212, 218, 226,
227, 233, 240, 241, 259, 260, 267, 289, 296, 297, 298, 312,
313, 314, 320, 325, 330, 337, 345, 346, 352, 353, 356

<223> n = A,T,C or G

<221> misc_feature

<222> 382, 385, 400, 427, 481, 484, 485, 491, 505, 515, 533, 542,
544, 554, 557, 560, 561, 564, 575, 583, 589, 595, 607, 619,
628, 634, 641, 645, 658, 670

<223> n = A,T,C or G

<400> 37

```

gagacanan naacgtcang agaanaaaag angcatggaa cacaanccag gcncgatggc 60
caccttccca ccagcancca gcgcccccca gcngccccca ngncggang accangactc 120
cancctgnat caatctganc tctattcctg gcccatncct acctcggagg tggangccgn 180
aaaggctgca cnnncagaga agctgctgcc ancaccancc gccccnnccc tgnccgggctn 240
nataggaaac tggtgaccnn gctgcanaat tcatacagga gcacgcgang ggcacnnnct 300
cacactgagt tnnngatgan gcctnaccan ggacctnccc cagcnnattg annacnggac 360
tgccggaggaa ggaagacccc gnacnggatc ctggccggcn tgccaccccc ccacccctag 420
gattatnccc cttgactgag tctctgaggg gctacccgaa cccgcctcca ttccctacca 480
natnntgctc natcgggact gacangctgg ggatnggagg ggctatcccc cancatcccc 540
tnanaccaac agcnaangan natnggggct ccccnngggtc ggngcaacnc tcctncaccc 600
cggcgcnggc cttegggtgt gtcctcctc aacnaattcc naaanggcgg gccccccngt 660
ggactcctcn ttgttcctc c 681

```

<210> 38

<211> 687

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 3, 30, 132, 151, 203, 226, 228, 233, 252, 264, 279, 306,
308, 320, 340, 347, 380, 407, 429, 437, 440, 445, 448, 491,
559, 567, 586, 589, 593, 596, 603, 605, 606, 609, 626, 639,

<223> n = A, T, C or G

canaaaaaaaaa	aaaacatggc	cgaaccagn	aagctgcgcg	atggcgccac	ggccctctt	60
ctcccggcct	gtgtccgga	ggtttccctc	cgaggcgccc	cggctcccgc	aagcggagga	120
gagggcgga	cntgccggg	cggagctca	naggccctgg	ggccgctctg	ctctcccgc	180
atcgcaagg	cggcgctaac	ctnaggcctc	cccgcaaagg	tcccnangc	gngggcgcg	240
gggggctgtg	anaaccgcaa	aaanaacgct	gggcgcgcng	cgaaccgcgc	cacccccgcg	300
aaggananac	ttccacagan	gcagcgtttc	cacagcccan	agccacnttt	ctaggggtgat	360
gcaccccgagt	aagttcctgn	cggggaagct	caccgctgtc	aaaaaanctc	ttcgtctccac	420
cggcgcacna	agggggangan	ggcangangc	tgccgcccgc	acaggtcatc	tgatcacgtc	480
gcccgcccta	ntctgctttt	gtgaatctcc	actttgttca	accccacccg	ccgttctctc	540
ctccttgccg	cttcctctna	ccttaanaac	cagcttcctc	taccenatng	tanttnctct	600
gcnenngtng	aaattaattc	ggtcnccgg	aacctcttnc	ctgtggcaac	tgctnaaaga	660
aactgctgtt	ctgnttactg	cngtccc				687

<213> Homo sapiens

$\langle 223 \rangle \quad n = A, T, C \text{ or } G$

actagtctgg	cctacaatag	tgtgattcat	gtaggacttc	tttcatcaat	tcaaaacccc	60
tagaaaaacg	tatacagatt	atataagtag	ggataagatt	tctaacattt	ctgggctctc	120
tgacccttgc	gctagactgt	ggaaagggag	tattattata	gtatacaaca	ctgctgttgc	180
cttattagtt	ataacatgat	aggtgctgaa	ttgtgattca	caattttaaaa	acactgtaat	240
ccaaactttt	ttttttaact	gtagatcatg	catgtgaatg	ttaatgttaa	tttgttcaan	300
gttgttatgg	gtagaaaaaa	ccacatgcct	taaaatttta	aaaagcaggg	cccaaactta	360
ttagtttaaa	attaggggta	tgttttccagt	ttgtttattaa	ntgggttatag	ctctgttttag	420
aanaaatcna	ngaacangat	ttngaaantt	aagntgacat	tatttnccag	tgacttgtta	480
at ttgaaatc	anacacggca	ccttccgttt	tggtntctatt	ggnttttgaa	tccaancngg	540
ntccaaatct	tn ttgaaac	ngtccnttta	actttttttac	nanatcttat	ttttttattt	600
tggaatggcc	ctattttaang	ttaaaagggg	ggggnnccac	naccattcnt	gaataaaaact	660
naatatatat	ccttggtccc	ccaaaattta	aggng			695

<213> Homo sapiens

<223> n = A, T, C or G

<400> 40
 actagtagtc agttgggagt gggtgctata ccttgacttc atttatatga atttccactt 60
 tattaataa tagaaaagaa aatcccgggtg cttgcagtag agttatagga cattctatgc 120
 ttacagaaaa tatagccatg attgaaatca aatagtaaag gctgttctgg ctttttatct 180
 tcttagctca tcttaaataa gtagtacact tgggatgcag tgcgtctgaa gtgctaataca 240
 gttgtaacaa tagcacaaat cgaacttagg atgtgtttct tctcttctgt gtttcgattt 300
 tgatcaattc ttttaattttg ggaacctata atacagtttt cctattcttg gagataaaaa 360
 ttaaattgat cactgatatt taagtcattc tgcttctcat ctnaatattc catattctgt 420
 attagganaa antacctccc agcacagccc cctctcaaac cccacccaaa accaagcatt 480
 tggaaatgagt ctcttttatt tccgaantgt ggatgggtata acccatatcn ctccaatttc 540
 tgnntgggtt ggggtattaat ttgaactgtg catgaaaagn ggnaatcttt nctttgggtc 600
 aaantttncg ggtaattttg nctngncaaa tccaatttnc ttttaagggtg tctttataaa 660
 atttgcatt cngg 674

<210> 41
 <211> 657
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 243, 247, 251, 261, 267, 272, 298, 312, 315, 421, 432, 434,
 501, 524, 569, 594, 607, 650
 <223> n = A,T,C or G

<400> 41
 gaaacatgca agtaccacac actgtttgaa ttttgcacaa aaagtgactg tagggatcag 60
 gtgatagccc cggaatgtac agtgtcttgg tgcaccaaga tgccttctaa aggctgacat 120
 accttgggac cctaattgggg cagagagtat agccctagcc cagtgggtgac atgaccactc 180
 cctttgggag gctgaagtta aagggaatgg tatgtgtttt ctcatggaag cagcacatga 240
 atnggtnaca ngatgttaaa ntaaggntct antttgggtg tcttgtcatt tgaaaaantg 300
 acacactcct ancanctggg aaaggggtgc tggaagccat ggaagaactc taaaaacatt 360
 agcatgggct gatctgatta ctctctggca tcccgtcac ttttatggga agtcttatta 420
 naaggatggg ananttttcc atatccttgc tgttggaact ctggaacact ctctaaattt 480
 ccctctatta aaaatcactg nccttactac acttctcctc tganggaata gaaatggacc 540
 tttctctgac ttagttcttg gcatggganc cagcccaaat taaaatctga ctnttccggt 600
 ttctccngaa ctcacctact tgaattggta aaacctcctt tggaattagn aaaaacc 657

<210> 42
 <211> 389
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 179, 317, 320
 <223> n = A,T,C or G

<400> 42
 actagtgtc aggaatgtaa acaagtttgc tgggccttgc gagacttcac cagggttgttt 60
 cgatagctca cactcctgca ctgtgcctgt caccaggaa tgtctttttt aattagaaga 120
 caggaagaaa acaaaaacca gactgtgtcc cacaatcaga aacctccgtt gtggcagang 180
 ggccttcacc gccaccaggg tgtcccgcga gacagggaga gactccagcc ttctgaggcc 240
 atcctgaaga attcctgttt ggggggttgtg aaggaaaatc acccggtttt aaaaagatgc 300

tgttgccctgc ccgcgtngtn gggaagggac tggtttcctg gtgaatttct taaaagaaaa 360
atattttaag ttaagaaaaa aaaaaaaaaa 389

<210> 43
<211> 279
<212> DNA
<213> Homo sapiens

<400> 43
actagtgaca agctcctggt cttgagatgt cttctcgtta aggagatggg ccttttggag 60
gtaaaggata aaatgaatga gttctgtcat gattcactat tctagaactt gcatgacctt 120
tactgtgtta gctctttgaa tgttcttgaa attttagact ttctttgtaa acaaataata 180
tgtccttatac attgtataaa agctgttatg tgcaacagtg tggagatcct tgtctgattt 240
aataaaatac ttaaactactg aaaaaaaaaa aaaaaaaaaa 279

<210> 44
<211> 449
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 245, 256, 264, 266, 273, 281, 323, 325, 337, 393
<223> n = A,T,C or G

<400> 44
actagtagca tcttttctac aacgttaaaa ttgcagaagt agcttatcat taaaaaaca 60
caacaacaac aataacaata aatcctaagt gtaaatcagt tattctaccc cctaccaagg 120
atatcagcct gttttttccc ttttttctcc tgggaataat tgtgggcttc ttcccaaatt 180
tctacagcct ctttcctctt ctcatgcttg agcttccttg tttgcacgca tgcgttgtgc 240
aagantgggc tgtttngctt ggantncggt ccnagtggaa ncatgcttc ctttgttact 300
gttggaagaa actcaaacct tcnancccta ggtgttncca ttttgtcaag tcatcactgt 360
atttttgtac tggcattaac aaaaaaagaa atnaaatatt gttccattaa actttaataa 420
aactttaaaa gggaaaaaaa aaaaaaaaaa 449

<210> 45
<211> 559
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 263
<223> n = A,T,C or G

<400> 45
actagtgtgg gggaatcacg gacacttaaa gtcaatctgc gaaataattc ttttattaca 60
cactcactga agtttttgag tcccagagag ccattctatg tcaaacattc caagtactct 120
ttgagagccc agcattacat caacatgccc gtgcagttca aaccgaagtc cgcaggcaaa 180
tttgaagctt tgcttgctcat tcaaacagat gaaggcaaga gtattgctat tcgactaatt 240
ggtgaagctc ttggaaaaaa ttnactagaa tactttttgt gttaagttaa ttacataagt 300
tgtattttgt taactttatc tttctacact acaattatgc ttttgtatat atattttgta 360
tgatggatat ctataattgt agattttgtt tttaacaagt aatactgaag actcgactga 420
aatattatgt atctagccca tagtattgta cttaactttt acagggtgaa aaaaaaattc 480

1000700-13001

tgtgtttgca ttgattatga tattctgaat aaatatggga atatatttta atgtgggtaa 540
 aaaaaaaaaa aaaaaggaa 559

<210> 46
 <211> 731
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 270, 467, 477, 502, 635, 660, 671, 688, 695, 697, 725
 <223> n = A,T,C or G

<400> 46
 actagttcta gtaccatggc tgtcatagat gcaaccatta tattccattt agtttcttcc 60
 tcaggttccc taacaattgt ttgaaactga atatatatgt ttatgtatgt gtgtgtgttc 120
 actgtcatgt atatggtgta tatgggatgt gtgcagtttt cagttatata tatattcata 180
 tatacatatg catatatatg tataatatat atatatacat gcatacactt gtataatata 240
 catatatata cacatatatg cacacatatn atcactgagt tccaaagtga gtctttattt 300
 ggggcaattg tattctctcc ctctgtctgc tcaactgggc tttgcaagac atagcaattg 360
 cttgatttcc tttggataag agtcttatct tcggcactct tgactctagc cttaacttta 420
 gatttctatt ccagaatacc tctcatatct atcttaaaac ctaaganggg taaagangtc 480
 ataagattgt agtatgaaag antttgctta gttaaattat atctcaggaa actcattcat 540
 ctacaaatta aattgtaaaa tgatgggtttg ttgtatctga aaaaatgttt agaacaagaa 600
 atgtaactgg gtacctgtta tatcaaagaa cctcnattta ttaagtctcc tcatagccan 660
 atccttatat ngccctctct gacctgantt aatananact tgaataatga atagttaatt 720
 taggnntggg c 731

<210> 47
 <211> 640
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 5, 28, 106, 153, 158, 173, 176, 182, 189, 205, 210, 214,
 225, 226, 229, 237, 260, 263, 269, 277, 281, 282, 322, 337,
 338, 354, 365, 428, 441, 443, 456, 467, 476, 484, 503, 508,
 554, 567, 575, 579, 588, 601, 606, 609, 611, 621, 636
 <223> n = A,T,C or G

<400> 47
 tgcgngccgg tttggccctt ctttgtanga cactttcatc cgccctgaaa tcttcccgat 60
 cgttaataac tcctcaggtc cctgcctgca cagggttttt tcttantttg ttgcctaaca 120
 gtacacaaa tgtgacatcc tttcaccaat atngattnct tcataccaca tcntcnatgg 180
 anacgactnc aacaattttt tgatnaccn aaanactggg ggctnnaana agtacantct 240
 ggagcagcat ggacctgtcn gcnactaang gaacaanagt nntgaacatt tacacaacct 300
 ttggtatgtc ttactgaaag anagaaacat gcttctnncc ctagaccacg aggncaaccg 360
 caganattgc caatgccaaag tccgagcggg tagatcagggt aatacattcc atggatgcat 420
 tacatacntt gtccccgaaa nanaagatgc cctaanggct tcttcanact gggtccngaaa 480
 acanctacac ctggtgcttg ganaacanac tctttggaag atcatctggc acaagttccc 540
 ccagtgggg tttnccttgg cacctanctt accanactna ttcggaancc attctttggc 600
 ntggcnttnt nttgggacca ntcttctcac aactgnaccc 640

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<210> 48
 <211> 257
 <212> DNA
 <213> Homo sapiens

<400> 48
 actagtatat gaaaatgtaa atatcacttg tgtactcaaa caaaagttgg tcttaagctt 60
 ccaccttgag cagccttgga aacctaacct gcctctttta gcataatcac attttctaaa 120
 tgattttctt tgttcctgaa aaagtgattt gtattagttt tacatttggt ttttggaaga 180
 ttatatttgt atatgtatca tcataaaaata tttaaataaa aagtatcttt agagtgaaaa 240
 aaaaaaaaaa aaaaaaaa 257

<210> 49
 <211> 652
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 410, 428, 496, 571, 647
 <223> n = A,T,C or G

<400> 49
 actagttcag atgagtggct gctgaagggg ccccttctgc attttcatta taaccaatt 60
 tccacttatt tgaactctta agtcataaat gtataatgac ttatgaatta gcacagttaa 120
 gttgacacta gaaactgccc atttctgtat tacactatca aataggaaac attggaaaga 180
 tggggaaaaa aatcttattt taaaatggct tagaaagttt tcagattact ttgaaaattc 240
 taaacttctt tctgtttcca aaacttgaaa atatgtagat ggactcatgc attaagactg 300
 ttttcaaagc tttcctcaca tttttaaagt gtgattttcc ttttaataata catatttatt 360
 ttcttttaaag cagctatata ccaacccatg actttggaga tatacctatn aaaccaatat 420
 aacagcangg ttattgaagc agctttctca aatgttgctt cagatgtgca agttgcaaat 480
 tttattgtat ttgtanaata caatttttgt tttaaactgt atttcaatct atttctccaa 540
 gatgcttttc atatagagtg aaatatccca ngataactgc ttctgtgtcg tcgcatttga 600
 cgcataactg cacaaatgaa cagtgtatac ctcttggttg tgcattnacc cc 652

<210> 50
 <211> 650
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 237, 270, 311, 443, 454, 488, 520, 535, 539, 556, 567, 594,
 603, 634
 <223> n = A,T,C or G

<400> 50
 ttgcgctttg attttttttag ggcttgtgcc ctgtttcact tatagggtct agaatgcttg 60
 tgttgagtaa aaaggagatg cccaatattc aaagctgcta aatgttctct ttgccataaa 120
 gactccgtgt aactgtgtga acacttgga tttttctcct ctgtcccag gtcgtcgtct 180
 gctttctttt ttgggttctt tctagaagat tgagaaatgc atatgacagg ctgagancac 240
 ctcccaaac acacaagctc tcagccacan gcagcttctc cacagcccca gcttcgcaca 300
 ggctcctgga nggctgcctg ggggaggcag acatgggagt gccaaggtgg ccagatggtt 360
 ccaggactac aatgtcttta tttttaactg tttgccactg ctgccctcac ccctgcccg 420

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```
<221> misc_feature
<222> 538, 549, 551, 552, 554, 556, 557, 562, 563, 567, 571, 572,
576, 579, 590, 592, 595, 598, 606, 609, 613, 620, 622, 624,
626, 631, 634, 638, 641, 647, 654, 660, 661, 674
<223> n = A,T,C or G
```

```
<210> 53
<211> 502
<212> DNA
<213> Homo sapiens
```

<400> 53						
tgaagatcct	ggtgtcgcca	tgggccgcgcg	ccccgcccgt	tgttaccggt	attgtaagaa	60
caagccgtac	ccaaagtctc	gcttctgcgcg	agggtgtccct	gatgccaaaa	ttcgcatttt	120
tgacctgggg	cggaaaaaang	caaaantgga	tgagtctccg	ctttgtggcc	acatggtgtc	180
agatcaatat	gagcagctgt	cctctgaagc	cctgnangct	gcccgaattt	gtgccaaataa	240
gtacatggta	aaaagtngtg	gcnaagatgc	ttccatatcc	gggtgcggn	ccacccttc	300
cacgtcatcc	gcatacaaa	gatgttgctc	tgtgctgggg	ctgacaggct	cccaacaggc	360
atgcgaagtg	cctttggaaa	acccanggca	ctgtggccag	ggttcacatt	gggccaattn	420
atcatgttca	tccgcaccaa	ctgcagaaca	angaacntgt	naattnaagc	cctgcccagg	480
gncaanttca	aatttcccgg	cc				502

```
<220>  
<221> misc_feature  
<222> 431, 442, 445  
<223> n = A,T,C or G
```

```
<400> 54
actagtccaa gaaaaaatatg cttaatgtat attacaaagg ctttgtatat gttaacctgt 60
tttaaatgcca aaagtttgc t t t g t c c a c a a t t t c c t t a a g a c c t c t t c a g a a a g g g a t t t 120
gtttgcctta atgaatactg ttgggaaaaa acacagtata atgagtgaaa agggcagaag 180
caagaaat t t c t a c a t c t t a g c g a c t c c a a g a a g a a t g a g t a t c c a c a t t t a g a t g g c a c 240
attatgagga ctttaatat t t c c t t a a a c a c a a t a t g t t t t c t t t t t t t c t t t t a t t c a c 300
atgatttcta agtatat t t t t t c a t g c a g g a c a g t t t t t t c a c c t t g a t g t a c a g t g a c t g 360
tgttaaat t t t c t t t c a g t g g c a a c c t c t a t a a t c t t t a a a t a t g g t g a g c a t c t t g t 420
```

```
<210> 55
<211> 606
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 375, 395, 511, 542, 559, 569, 578, 581
<223> n = A,T,C or G
```

<400> 55						
actagtaaaa	agcagcattg	ccaaataatc	cctaattttc	cactaaaaat	ataatgaaat	60
gatgttaagc	tttttgaaaa	gttttaggta	aacctactgt	tgtttagatta	atgtatttgt	120
tgcttccctt	tatctggaat	gtggcattag	cttttttatt	ttaaccctct	ttaattctta	180
ttcaattcca	tgacttaagg	ttggagagct	aaacactggg	atTTTTtgat	aacagactga	240
cagttttgca	taattataat	cggcattgta	catagaaagg	atatggctac	cttttgttaa	300
atctgcactt	tctaaatatc	aaaaaaggga	aatgaagtat	aatcaattt	ttgtataatc	360
tgtttgaaac	atgantttta	tttgcttaat	attanggctt	tgcccttttc	tgttagtctc	420
ttgggatcct	gtgtaaaaact	gttctcatta	aacaccaaac	agttaagtcc	attctctggt	480
actagctaca	aattccgttt	catattctac	ntaacaattt	aaattaactg	aaatatttct	540
anatggtcta	cttctgtcnt	ataaaaaacna	aacttgantt	nccaaaaaaa	aaaaaaaaaa	600
aaaaaa						606

```
<210> 56
<211> 183
<212> DNA
<213> Homo sapiens
```

```
<400> 56
actagtatat ttaaacttac aggcttattt gtaatgtaaa ccaccatttt aatgtactgt 60
aattaacatg gttataatac gtacaatcct tccctcatcc catcacacaa ctttttttgt 120
gtgtgataaa ctgattttgg tttgcaataa aaccttgaaa aataaaaaaaaa aaaaaaaaaa 180
aaa 183
```

```
<210> 57
<211> 622
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 358, 368, 412, 414, 425, 430, 453, 455, 469, 475, 495, 499,  
529, 540, 564, 575, 590  
<223> n = A,T,C or G
```

<400> 57						
actagtcact	actgtcttct	ccttgtagct	aatcaatcaa	tattcttccc	ttgcctgtgg	60
gcagtggaga	gtgctgctgg	gtgtacgctg	cacctgccca	ctgagttggg	gaaagaggat	120
aatcagtgag	cactgttctg	ctcagagctc	ctgatctacc	ccacccccta	ggatccagga	180
ctgggtcaaa	gctgcattga	accaggccct	ggcagcaacc	tgggaatggc	tggagggtgg	240
agagaacctg	acttctcttt	ccctctccct	cctccaacat	tactggaact	ctatcctgtt	300

```

agggatcttc tgagcttggt tccctgctgg gtgggacaga agacaaagga gaagggangg 360
tctacaanaa gcagcccttc tttgtcctct ggggttaatg agcttgacct ananttcacg 420
gaganaccan aagcctctga tttttaattt ccntnaaatg tttgaagtnt atatntacat 480
atatatatat ctttnaatnt ttgagtcctt gatatgtctt aaaatccant ccctctgccn 540
gaaacctgaa ttaaaaccat gaanaaaaaat gtttncctta aagatgttan taattaattg 600
aaacttgaaa aaaaaaaaaa aa 622

```

```

<210> 58
<211> 433
<212> DNA
<213> Homo sapiens

```

```

<400> 58
gaacaaattc tgattgggtt tgtaccgtca aaagacttga agaaatttca tgattttgca 60
gtgtggaagc gttgaaaatt gaaagttact gcttttccac ttgctcatat agtaaaggga 120
tcctttcagc tgccagtgtt gaataatgta tcatccagag tgatgttatc tgtgacagtc 180
accagcttta agctgaacca ttttatgaat accaaataaa tagacctctt gtactgaaaa 240
catatttggt actttaatcg tgctgcttgg atagaaatat ttttactggg tcttctgaat 300
tgacagtaaa cctgtccatt atgaatggcc tactgttcta ttatttggtt tgacttgaat 360
ttatccacca aagacttcat ttgtgtatca tcaataaagt tgtatgtttc aactgaaaaa 420
aaaaaaaaaa aaa 433

```

```

<210> 59
<211> 649
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 22, 190, 217, 430, 433, 484, 544, 550, 577, 583, 594
<223> n = A,T,C or G

```

```

<400> 59
actagttatt atctgacttt cngggttataa tcatttetaat gagtgtgaag tagcctcttg 60
tgtcattttg atttgcatth ctctgatgag tgatgctatc aagcaccttt gctgggtgctg 120
ttggccatat gtgtatgttc cctggagaag tgtctgtgct gagccttggc ccacttttta 180
attaggcgtn tgtcttttta ttactgagtt gtaaganttc tttatatatt ctggattcta 240
gacccttata agatacatgg tttgcaaata ttttctccca ttctgtgggt tgtgttttca 300
ctttatcgat aatgtcctta gacatataat aaatttgtat tttaaaagtg acttgatttg 360
ggctgtgcaa ggtgggctca cgcttgtaat cccagcactt tgggagactg aggtgggtgg 420
atcatatgan gangctagga gtctgaggtc agcctggcca gcatagcgaa aacttgtctc 480
tacnaaaaat acaaaaatta gtcaggcatg gtgggtgcacg tctgtaatac cagcttctca 540
ggangctgan gcacaaggat cacttgaacc ccagaangaa gangttgcag tganctgaag 600
atcatgccag ggcaacaaaa atgagaactt gtttaaaaaa aaaaaaaaaa 649

```

```

<210> 60
<211> 423
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 209, 222, 277, 389, 398
<223> n = A,T,C or G

```

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<400> 60
 actagttcag gccttccagt tcactgacaa acatggggaa gtgtgcccag ctggctggaa 60
 acctggcagt gataccatca agcctgatgt ccaaaagagc aaagaatatt tctccaagca 120
 gaagtgagcg ctgggctgtt ttagtgccag gctgcggtgg gcagccatga gaacaaaacc 180
 tcttctgtat tttttttttc cattagtana acacaagact cngattcagc cgaattgtgg 240
 tgtcttaciaa ggcagggcctt tcctacaggg ggtgganaaa acagcctttc ttcctttggt 300
 aggaatggcc tgagttggcg ttgtgggcag gctactgggt tgtatgatgt attagtagag 360
 caaccatta atcttttgta gtttgtatna aacttganct gagaccttaa acaaaaaaaaa 420
 aaa 423

<210> 61
 <211> 423
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 195, 285, 295, 329, 335, 340, 347, 367, 382, 383, 391, 396,
 418
 <223> n = A,T,C or G

<400> 61
 cgggactgga atgtaaagtg aagttcggag ctctgagcac gggctcttcc cgccgggtcc 60
 tccctcccca gacccagag ggagaggccc accccgcccc gccccgcccc agccctgct 120
 caggtctgag tatggctggg agtcgggggc cacaggcctc tagctgtgct gctcaagaag 180
 actggatcag ggtanctaca agtggccggg ccttgccctt gggattctac cctgttccta 240
 atttgggtgtt ggggtgcggg gtccctggcc cccttttcca cactncctcc ctccngacag 300
 caacctccct tggggcaatt gggcctggnt ctccncccg ngttgcgnacc ctttgttgggt 360
 ttaaggncct taaaaatgtt annttttccc ntgcnggggt taaaaaagga aaaaactnaa 420
 aaa 423

<210> 62
 <211> 683
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 218, 291, 305, 411, 416, 441, 443, 453, 522, 523, 536, 542,
 547, 566, 588, 592, 595, 603, 621, 628, 630, 632, 644, 645,
 648, 655, 660, 672, 674, 676, 677, 683
 <223> n = A,T,C or G

<400> 62
 gctggagagg ggtacggact ttcttggagt tgtcccaggt tggaatgaga ctgaactcaa 60
 gaagagaccc taagagactg gggaatgggt cctgccttca ggaaagtga agacgcttag 120
 gctgtcaaca cttaaaggaa gtccccttga agcccagagt ggacagacta gaccattga 180
 tggggccact ggccatggtc cgtggacaag acattcngt gggccatggc acaccggggg 240
 ggatcaaaat gtgtacttgt ggggtctcgc cccttgccaa aaccaaacca ntcccactcc 300
 tgtcnttga ctttcttccc attccctcct ccccaaattgc acttcccctc ctccctctgc 360
 ccctcctgtg tttttggaat tctgtttccc tcaaaattgt taatttttta ntttngacc 420
 atgaacttat gtttggggtc nangttcccc ttnccaatgc atactaatat attaattggt 480
 atttattttt gaaatatttt ttaatgaact tggaaaaaat tnntggaatt tccttncttc 540


```

cnttttnttt ggggggggtg gggggntggg ttaaaatntt tttggaancc cnatnggaaa 600
ttnttacttg gggccccctt naaaaaantn anttccaatt cttnnatngc ccctnttccn 660
ctaaaaaaaa ananannaaa aan 683

```

```

<210> 63
<211> 731
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 237, 249, 263, 288, 312, 317, 323, 326, 337, 352, 362, 370,
377, 400, 411, 414, 434, 436, 446, 457, 473, 486, 497, 498,
502, 512, 531, 546, 554, 563, 565, 566, 588, 597, 608, 611,
613, 615, 627, 632, 640, 641, 644, 654, 660, 663, 665
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 671, 678, 692, 697, 698, 699, 704, 705, 712, 714, 717, 718,
719, 723, 725, 730, 731
<223> n = A,T,C or G

```

```

<400> 63
actagtcata aaggggtgtg gcgtcttcga cgtggcggtc ttggcgccac tgctgcgaga 60
cccgccctg gacctcaagg tcatccactt ggtgcgtgat cccgcgcggg tggcgagttc 120
acggatccgc tcgcgccacg gcctcatccg tgagagccta caggtggtgc gcagccgaga 180
ccgcgagctc accgcatgcc cttcttgag gccgcgggcc acaagcttg cgccanaaa 240
gaaggcgtng gggggccgca aantaccacg ctctgggcgc tatggaangt cctcttgcaa 300
taatattggt tnaaaanctg canaanagcc cctgcanccc cctgaactgg gntgcagggc 360
cncttacctn gtttgntgct ggttaciaag aacctgtttn ggaaaaccct nccnaaaacc 420
ttccgggaaa attntncaaa ttttntttg ggaattnttg ggtaaaccct ccnaaaatgg 480
gaaacntttt tgccctnnaa antaaacat tnggttccgg gggccccccc ncaaaaccct 540
ttttntttt tttntgcccc cantnncccc ccggggcccc ttttttngg ggaaaanccc 600
ccccctncc nanantttta aaagggnggg anaatttttn nttnccccc gggncccccn 660
ggngntaaaa nggtttcncc ccccgaggg gnggggnnnc ctcnnaaacc cntntcnna 720
ccnnttttn n 731

```

```

<210> 64
<211> 313
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 240
<223> n = A,T,C or G

```

```

<400> 64
actagttgtg caaaccacga ctgaagaaag acgaaaagtg ggaaataact tgcaacgtct 60
gttagagatg gttgctacac atgttgggtc tgtagagaaa catcttgagg agcagattgc 120
taaagttgat agagaatatg aagaatgcat gtcagaagat ctctcgaaa atattaaaga 180
gattagagat aagtatgaga agaaagctac tctaattaag tcttctgaag aatgaagatn 240
aatgttgat catgtatata tatccatagt gaataaaatt gtctcagtaa agttgtaaaa 300
aaaaaaaaaaa aaa 313

```

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```
<220>  
<221> misc_feature  
<222> 419, 493, 519, 568, 605, 610  
<223> n = A,T,C or G
```

<400> 67
 caccattaaa gctgcttacc aagaacttcc ccagcatttt gacttccttg tttgatagct 60
 gaattgtgag caggtgatag aagagccttt ctagttgaac atacagataa tttgctgaat 120
 acattccatt taatgaagg gttacatctg ttacgaagct actaagaagg agcaagagca 180
 taggggaaaa aaatctgac agaacgcac aaactcacat gtgccccctc tactacaaac 240
 agattgtagt gctgtggtg tttattccgt tgtgcagaac ttgcaagctg agtcactaaa 300
 cccaaagaga ggaaattata ggtagttaa acattgtaat cccaggaact aagtttaatt 360
 cacttttgaa gtgttttggt tttattttt ggtttgtctg atttactttg ggggaaaang 420
 ctaaaaaaaa agggatatca atctctaatt cagtgccac taaaagttgt ccctaaaaag 480
 tctttactgg aanttatggg actttttaag ctccaggnt tttggtcctc caaattaacc 540
 ttgcatgggc cccttaaaat tgttgaangg cattcctgcc tctaagtttg gggaaaattc 600
 ccccnttttn aaaatttgga 620

<210> 68
 <211> 551
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 286, 464, 480, 501, 502, 518, 528, 533, 536, 537, 538, 539,
 540, 541, 543, 544, 545, 547, 548, 549
 <223> n = A,T,C or G

<400> 68
 actagtagct ggtacataat cactgaggag ctattttctta acatgctttt atagaccatg 60
 ctaatgctag accagtattt aagggtctaat ctcacacctc cttagctgta agagtctggc 120
 ttagaacaga cctctctgtg caataacttg tggccactgg aaatccctgg gccggcattt 180
 gtattggggg tgcaatgact cccaagggcc aaaagagtta aaggcacgac tgggatttct 240
 tctgagactg tggtgaaact ccttccaagg ctgagggggg cagtangtgc tctgggaggg 300
 actcggcacc actttgatat tcaacaagcc acttgaagcc caattataaa attgttattt 360
 tacagctgat ggaactcaat ttgaaccttc aaaactttgt tagtttatcc tattatattg 420
 ttaaaccctaa ttacatttgt ctagcattgg atttggttcc tgtngcatat gtttttttcn 480
 cctatgtgct cccctcccc nnatcttaat ttaaaccnca attttgcnat tcnccnnnnn 540
 nannnannna a 551

<210> 69
 <211> 396
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 235, 310, 323, 381
 <223> n = A,T,C or G

<400> 69
 cagaaatgga aagcagagtt ttcatttctg tttataaacg tctccaaaca aaaatggaaa 60
 gcagagtttt cattaaatcc ttttaccttt tttttttctt ggtaatcccc tcaaataaca 120
 gtatgtggga tattgaatgt taaagggata tttttttcta ttatttttat aattgtacaa 180
 aattaagcaa atgttaaaag ttttatatgc tttattaatg ttttcaaaag gtatnatata 240
 tgtgatacat tttttaagct tcagttgctt gtcttctggt actttctggt atgggctttt 300
 ggggagccan aaaccaatct acnatctctt tttgtttgcc aggacatgca ataaaattta 360

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396

```
<210> 70
<211> 536
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 388, 446, 455  
<223> n = A,T,C or G
```

<400> 70						
actagtgcaa	aagcaaatat	aaacatcgaa	aaggcgttcc	tcacgttagc	tgaagatatc	60
cttcgaaaga	cccctgtaaa	agagcccaac	agtgaaaatg	tagatatcag	cagtggagga	120
ggcgtgacag	gctggaagag	caaatgctgc	tgagcattct	cctgttccat	cagttgccat	180
ccactacccc	gttttctctt	cttgctgcaa	aataaaccac	tctgtccatt	tttaactcta	240
aacagatatt	tttgtttctc	atcttaacta	tccaagccac	ctatttttatt	tgttctttca	300
tctgtgactg	cttgctgact	ttatcataat	tttcttcaaa	caaaaaaatg	tatagaaaaa	360
tcatgtctgt	gacttcattt	ttaaatgnta	cttgctcagc	tcaactgcat	ttcagttggt	420
ttatagtcca	gttcttatca	acattnaaac	ctatngcaat	cattttcaaat	ctatttctgca	480
aatttgataa	qaataaaaqt	tagaattttaa	caatttaaaaa	aaaaaaaaaa	aaaaaa	536

```
<210> 71
<211> 865
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 22, 35, 39, 56, 131, 138, 146, 183, 194, 197, 238, 269, 277,
282, 297, 316, 331, 336, 340, 341, 346, 349, 370, 376, 381,
382, 392, 396, 397, 401, 433, 444, 445, 454, 455, 469, 472,
477, 480, 482, 489, 497, 499, 511, 522, 526, 527
<223> n = A,T,C or G
```

```
<221> misc_feature
<222> 545, 553, 556, 567, 574, 580, 610, 613, 634, 638, 639, 663,
672, 689, 693, 694, 701, 704, 713, 723, 729, 732, 743, 744,
749, 761, 765, 767, 769, 772, 774, 780, 783, 788, 792, 803,
810, 824, 840, 848
<223> n = A,T,C or G
```

<400> 71						
gacaaagcgt	taggagaaga	anagaggcag	ggaanactnc	ccaggcacga	tggccncctt	60
cccaccagca	accagcgccc	cccaccagcc	cccaggcccg	gacgacgaag	actccatcct	120
ggattaatct	nacctctntc	gcctgnccca	ttectacctc	ggagggtggag	gccggaaagg	180
tcncaccaag	aganaanctg	ctgccaacac	caaccgcccc	agccctggcg	ggcacganag	240
gaaactggtg	accaatctgc	agaattctna	gaggaanaag	cnagggggccc	cgcgctnaga	300
cagagctgga	tatgangcca	gaccatggac	nctacncccn	ncaatncana	cgggactgcg	360
gaagatggan	gaccncgcac	nngatcaggc	cngctnncca	ncccccacc	cctatgaatt	420
attcccgcgtg	aangaatctc	tgannggctt	ccannaaagc	gcctccccnc	cnaacgnaan	480
tncaacatng	ggattanang	ctgggaactg	naaggggcaa	ancctnnaat	atccccagaa	540
acaanctctc	ccnaanaaac	tggggcncct	catnggtgqn	accaactatt	aactaaaccg	600

```
<210> 72
<211> 560
<212> DNA
<213> Homo sapiens
```

<400> 72						
cctggacttg	tcttggttcc	agaacctgac	gacccggcga	cggcgacgtc	tcttttgact	60
aaaagacagt	gtccagtgct	ccngcctagg	agtctacggg	gaccgcctcc	cgcgccgccca	120
ccatgcccaa	cttctctggc	aactggaaaa	tcatccgata	ggaaaacttc	gangaattgc	180
tенаantgct	gggggtgaat	gtgatgctna	ngaanattgc	tgtggctgca	gcgtccaagc	240
cagcagtgga	gatcnaacag	gagggagaca	ctttctacat	caaaacctcc	accaccgtgc	300
gcaccacaaa	gattaacttc	nnngttgggg	aggantttga	ggancaaact	gtggatngga	360
ngcctgtnaa	aacctggtga	aatgggagaa	tganaataaa	atggtctgtg	ancanaaact	420
cctgaaagga	gaaggccccc	anaactcctg	gaccngaaaa	actgaccnc	cnatngggga	480
actgatnctt	gaaccctgaa	cgggcgggat	ganccttttt	tnttgcnc	naanggggttc	540
tttccntttc	ccccaaaaaa					560

```
<210> 73
<211> 379
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 8, 17, 18, 21, 26, 29, 30, 32, 53, 56, 67, 71, 81, 102, 104,
111, 112, 114, 119, 122, 124, 125, 134, 144, 146, 189, 190,
214, 215, 219, 220, 235, 237, 246, 280, 288, 302, 310, 313,
319, 322, 343, 353, 354
<223> n = A,T,C or G
```

```
<400> 73
ctggggganc  ggcggtnngc  nccatntcnn  gncgcgaagg  tggcaataaa  aanccnctga  60
aaccgcncaa  naacatgcc   naagatatgg  acgaggaaga  tngngctttc  nngnacaanc  120
gnanngagga  acanaacaaa  ctcnangagc  tctcaagcta  atgccgcggg  gaagggggcc  180
ttggccacnn  gtggaattaa  gaaatctggc  aaanngtann  tgttccttgt  gcctnangag  240
ataagngacc  ctttatttca  tctgtattta  aacctctctn  ttccctgnca  taacttcttt  300
tnccacgtan  agntggaant  anttgttgtc  ttggactggt  gtncatttta  gannaaactt  360
ttgttcaaaa  aaaaaataa  379
```

<210> 74
<211> 437

```
<220>  
<221> misc_feature  
<222> 145, 355  
<223> n = A,T,C or G
```

```
<210> 75
<211> 579
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 440, 513, 539, 551  
<223> n = A,T,C or G
```

```
<210> 76
<211> 666
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 411, 470, 476, 491, 506, 527, 560, 570, 632, 636, 643, 650,  
654, 658  
<223> n = A,T,C or G
```

```
<400> 76
gtttatccta tctctccaac cagattgtca gctccttgag ggcaagagcc acagtatatt 60
tcctgtttc ttccacaqtg cctaataata ctgtggaact aggttttaat aattttttaa 120
```

```
<210> 77
<211> 396
<212> DNA
<213> Homo sapiens
```

```
<400> 77
ctgcagcccg ggggatccac taatctacca nggttatattg gcagctaatt ctanatttgg 60
atcattgccc aaagttgcac ttgctgggtct cttgggattt ggccttggaagggtatcata 120
catanganta tgccanaata aattccattt ttttgaaaat canctcentg gggctggttt 180
tggtccacag cataacangc actgcctcct tacctgtgag gaatgcaaaa taaagcatgg 240
attaagtgag aaggggagact ctcagccttc agcttcctaa attctgtgtc tgtgactttc 300
gaagtttttt aaacctctga atttgtagac atttaaaatt tcaagtgtac tttaaaataa 360
aatactttcta atgggaacaa aaaaaaaaaa aaaaaa 396
```

```
<210> 78
<211> 793
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 309, 492, 563, 657, 660, 703, 708, 710, 711, 732, 740, 748,  
758, 762, 765, 787  
<223> n = A,T,C or G
```

<400> 78						
gcatectagc	cgccgactca	cacaaggcag	gtgggtgagg	aatccagag	ttgccatgga	60
gaaaattcca	gtgtcagcat	tcttgctcct	tgtggccctc	tcctacactc	tggccagaga	120
taccacagtc	aaacctggag	ccaaaaagga	cacaaaggac	tctcgaccca	aactgcccc	180
gaccctctcc	agaggttggg	gtgaccaact	catctggact	cagacatatg	aagaagctct	240
atataaatcc	aagacaagca	acaaaccctt	gatgattatt	catcacttgg	atgagtgcc	300
acacagtcna	gctttaaaga	aagtgtttgc	tgaaaataaa	gaaatccaga	aattggcaga	360
gcagtttgtc	ctcctcaatc	tggtttatga	aacaactgac	aaacaccttt	ctcctgatgg	420
ccagtatgtc	ccaggattat	gtttgttgac	ccatctctga	cagttgaagc	cgatatcctg	480
ggaagatatt	cnaaccgtct	ctatgcttac	aaactgcaga	tacgctctgt	tgcttgacac	540
atgaaaaagc	tctcaagttg	ctnaaaatga	attgtaagaa	aaaaaatctc	cagccttctg	600
tctgtcggct	tgaaaattga	aaccagaaaa	atgtgaaaaa	tggtctattgt	ggaacanatn	660
qacacctgat	taggttttqg	ttatgttcac	cactattttt	aanaaaanan	nttttaaaat	720

ttggttcaat tntctttttn aaacaatntg tttctacntt gnganctgat ttctaaaaaa 780
aataatnttt ggc 793

<210> 79
<211> 456
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 89, 195, 255, 263, 266, 286, 353, 384, 423, 425, 436, 441
<223> n = A,T,C or G

<400> 79
actagtatgg ggtgggaggg cccacccttc tcccctaggg gctgttcttg ctccaaaggg 60
ctccgtggag agggactggc agagctgang ccacctgggg ctggggatcc cactcttctt 120
gcagctgttg agcgcaccta accactggtc atgccccac ccctgctctc cgcacccgct 180
tcctcccgac cccangacca ggctacttct cccctcctct tgcctccctc ctgcccctgc 240
tgcctctgat cgtangaatt gangantgtc ccgccttgtg gctganaatg gacagtggca 300
ggggctggaa atgggtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gncccccccc 360
tgcaagaccg agattgaggg aaancatgtc tgctgggtgt gaccatgttt cctctccata 420
aantnccct gtgacnctca naaaaaaaaa aaaaaa 456

<210> 80
<211> 284
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 283
<223> n = A,T,C or G

<400> 80
ctttgtacct ctagaaaaga taggtattgt gtcatgaaac ttgagtttaa attttatata 60
taaaactaaa agtaatgctc actttagcaa cacatactaa aattggaacc atactgagaa 120
gaatagcatg acctccgtgc aaacaggaca agcaaatttg tgatgtgttg attaaaaaga 180
aataaataaa tgtgtatatg tgtaacttgt atgtttatgt ggaatacaga ttgggaaata 240
aaatgtattt cttactgtga aaaaaaaaa aaaaaaaaa aana 284

<210> 81
<211> 671
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 388, 505, 600, 603, 615, 642, 644, 660
<223> n = A,T,C or G

<400> 81
gccaccaaca ttccaagcta ccctgggtac ctttgtgcag tagaagctag tgagcatgtg 60
agcaagcggg gtgcacacgg agactcatcg ttataattta ctatctgcca agagtagaaa 120
gaaaggctgg ggatatttgg gttggcttgg ttttgatttt ttgcttgttt gtttgttttg 180

1000700-13001


```

tactaaaaca gtattatctt ttgaatatcg tagggacata agtatataca tgttatccaa 240
tcaagatggc tagaatgggtg cctttctgag tgtctaaaac ttgacacccc tggtaaactct 300
ttcaacacac ttccactgcc tgcgtaatga agttttgatt catttttaac cactggaatt 360
tttcaatgcc gtcattttca gttagatnat tttgcacttt gagattaaaa tgccatgtct 420
at ttgattag tcttattttt ttattttttac aggcttatca gtctcactgt tggctgtcat 480
tgtgacaaag tcaaataaac ccccnaggac aacacacagt atgggatcac atattgtttg 540
acattaagct ttggccaaaa aatgttgcac gtgtttttacc tcgacttgct aaatcaatan 600
canaaaggct ggctnataat gttggtggtg aaataattaa tnantaacca aaaaaaaaaa 660
aaaaaaaaa a 671

```

```

<210> 82
<211> 217
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 35
<223> n = A,T,C or G

```

```

<400> 82
ctgcagatgt ttcttgaatg ctttgtcaaa ttaanaaagt taaagtgcaa taatgtttga 60
agacaataag tgggtggtgta tcttgtttct aataagataa acttttttgt ctitgcttta 120
tcttattagg gagttgtatg tcagtgtata aaacatactg tgtggtataa caggcttaat 180
aaattcttta aaaggaaaaa aaaaaaaaaa aaaaaaa 217

```

```

<210> 83
<211> 460
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 104, 118, 172, 401, 422, 423, 444, 449
<223> n = A,T,C or G

```

```

<400> 83
cgcgagtggg agcaccagga tctcgggctc ggaacgagac tgcacggatt gttttaagaa 60
aatggcagac aaaccagaca tgggggaaat cgccagcttc gatnaggcca agctgaanaa 120
aacggagacg caggagaaga acaccctgcc gaccaaagag accattgagc angagaagcg 180
gagtgaatt tcctaagatc ctggaggatt tcctaccccc gtctctctcg agaccccagt 240
cgtgatgtgg aggaagagcc acctgcaaga tggacacgag ccacaagctg cactgtgaac 300
ctgggcactc cgcgccgatg ccaccggcct gtgggtctct gaagggaccc cccccaatcg 360
gactgccaaa ttctccggtt tgccccggga tattatacaa nattatttgt atgaataatg 420
annataaaac acacctcgtg gcancaana aaaaaaaaaa 460

```

```

<210> 84
<211> 323
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 70, 138, 178, 197, 228, 242, 244, 287, 311

```

1000700 = 13001

<223> n = A,T,C or G

<400> 84

```
tgggtgatct tggctctgtg gagctgctgg gacgggatct aaaagactat tctggaagct 60
gtggccaan gcattttgct ggcttaacgg gtcccgaac aaaggacacc agctctctaa 120
aattgaagtt taccganat aacaatcttt tgggcagaga tgcctatctt aacaaacncc 180
gtccctgcgc aacaacnaac aatctctggg aaataccggc catgaacntg ctgtctcaat 240
cnancatctc tctagctgac cgatcatatc gtcccagatt actacanatc ataataattg 300
atttcctgta naaaaaaaaa aaa 323
```

<210> 85

<211> 771

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 63, 426, 471, 497, 521, 554, 583, 586, 606, 609, 615, 652, 686, 691, 694, 695, 706, 713, 730, 732, 743, 751

<223> n = A,T,C or G

<400> 85

```
aaactgggta ctcaacactg agcagatctg ttctttgagc taaaaacat gtgctgtacc 60
aanagtttgc tcctggctgc tttgatgtca gtgctgtac tccacctctg cggcgaatca 120
gaagcaagca actttgactg ctgtcttgga tacacagacc gtattcttca tcctaaattt 180
attgtgggct tcacacggca gctggccaat gaaggctgtg acatcaatgc tatcatcttt 240
cacacaaaga aaaagtgtc tgtgtgcgca aatccaaaac agacttgggt gaaatatatt 300
gtgcgtctcc tcagtaaaaa agtcaagaac atgtaaaaac tgtggctttt ctggaatgga 360
attggacata gcccaagaac agaaagaact tgctgggggt ggaggtttca cttgcacatc 420
atgganggtt tagtgcttat cttatttgtg cctcctggac ttgtccaatt natgaagtta 480
atcatattgc atcatanttt gctttgttta acatcacatt naaatttaaac tgtattttat 540
gttatttata gctntaggtt ttctgtgttt aactttttat acnaantttc ctaaactatt 600
ttggtntant gcaanttaaa aattatattt ggggggggaa taaatattgg antttctgca 660
gccacaagct ttttttaaaa aaccantaca nccnngttaa atggtnggtc ccnaatgggt 720
tttgcttttn antagaaaat ttnttagaac natttgaaaa aaaaaaaaaa a 771
```

<210> 86

<211> 628

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 162, 249, 266, 348, 407, 427, 488, 518, 545, 566, 569, 597, 598, 611, 617, 621, 624

<223> n = A,T,C or G

<400> 86

```
actagtttgc tttacatttt tgaaaagtat tatttttgtc caagtgttta tcaactaaac 60
cttgtgttag gtaagaatgg aatttattaa gtgaatcagt gtgacccttc ttgtcataag 120
attatcttaa agctgaagcc aaaatatgct tcaaaagaaa angactttat tgttcattgt 180
agttcataca ttcaaagcat ctgaactgta gtttctatag caagccaatt acatccataa 240
gtggagaang aatagatta atgtcnaagt atgattgggt gagggagcaa gggtgaagat 300
aatctgggggt tgaaattttc tagttttcat tctgtacatt tttagttnga catcagattt 360
```

1000700-1300

```

gaaatattaa tgtttacctt tcaatgtgtg gtatcagctg gactcantaa caccctttc 420
ttccctnggg gatggggaat ggattattgg aaaatggaaa gaaaaaagta cttaaagcct 480
tcctttcnca gtttctggct cctaccctac tgatttancc agaataagaa aacattttat 540
catentctgc tttattccca ttaatnaant tttgatgaat aaatctgctt ttatgcnnac 600
ccaaggaatt nagtggnttc ntenttgt 628

```

```

<210> 87
<211> 518
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 384, 421, 486
<223> n = A,T,C or G

```

```

<400> 87
ttttttatatt ttttttagaga gtagttcagc ttttatattat aaattttattg cctgtttttat 60
tataacaaca ttatactggt tatggtttaa tacatatggt tcaaatgta taatacatca 120
agtagtacag ttttaaaatt ttatgcttaa aacaagtttt gtgtaaaaaa tgcagataca 180
ttttacatgg caaatcaatt ttttaagtcac cctaaaaatt gatttttttt tgaaatttaa 240
aaacacattt aatttcaatt tctctcttat ataaccttta ttactatagc atgggtttcca 300
ctacagttaa acaatgcagc aaaattccca tttcacggta aattgggttt taagcggcaa 360
ggttaaaaatg ctttgaggat cctnaatacc ctttgaactt caaatgaagg ttatggttgt 420
naatttaacc ctcatgccat aagcagaagc acaagtttag ctgcattttg ctctaaactg 480
taaaancgag cccccgttg aaaaagcaaa agggaccc 518

```

```

<210> 88
<211> 1844
<212> DNA
<213> Homo sapiens

```

```

<400> 88
gagacagtga atcctagtagt caaaggattt ttggcctcag aaaaagttgt tgattatattt 60
tattttatatt tatttttcga gactccgtct caaaaaaaaa aaaaaaaaaa agaatcacaa 120
ggtatttgct aaagcatttt gagctgcttg gaaaaaggga agtagttgca gtagagtttc 180
ttccatcttc ttgggtgctgg gaagccatat atgtgtcttt tactcaagct aaggggtata 240
agcttatgtg ttgaatttgc tacatctata tttcacatat tctcacaata agagaatttt 300
gaaatagaaa tatcatagaa catttaagaa agtttagtat aaataatatt ttgtgtgttt 360
taatcccttt gaagggatct atccaaagaa aatattttac actgagctcc ttcctacacg 420
tctcagtaac agatcctgtg ttagtctttg aaaatagctc atttttttaa tgtcagttag 480
tagatgtagc atacatatga tgtataatga cgtgtattat gtttaacaatg tctgcagatt 540
ttgtaggaaat acaaaacatg gcctttttta taagcaaaac gggccaatga ctagaataac 600
acatagggca atctgtgaat atgtattata agcagcattc cagaaaagta gttggtgaaa 660
taattttcaa gtcaaaaagg gatattggaaa gggaattatg agtaacctct attttttaag 720
ccttgctttt aaatttaaag ctacagccat ttaagccttg aggataataa agcttgagag 780
taataatggt aggttagcaa aggttttagat gtatcacttc atgcatgcta ccatgatagt 840
aatgcagctc ttcgagtcac ttctgggtcat tcaagatatt cacccttttg cccatagaaa 900
gcaccctacc tcacctgctt actgacattg tcttagctga tcacaagatc attatcagcc 960
tccattattc cttactgtat ataaaataca gagttttata ttttcctttc ttcgtttttc 1020
accatattca aaacctaaat ttgtttttgc agatggaatg caaagtaatc aagtgttcgt 1080
gctttcacct agaagggtgt ggtcctgaag gaaagaggtc cctaaatatc ccccaccctg 1140
ggtgctcctc cttccctggt accctgacta ccagaagtca ggtgctagag cagctggaga 1200
agtgcagcag cctgtgcttc cacagatggg ggtgctgctg caacaaggct ttcaatgtgc 1260

```

```

ccatcttagg gggagaagct agatcctgtg cagcagcctg gtaagtcctg aggagggttc 1320
attgctcttc ctgctgctgt cctttgcttc tcaacggggc tcgctctaca gtctagagca 1380
catgcagcta acttggtgcct ctgcttatgc atgaggggta aattaacaac cataaccttc 1440
atttgaagtt caaagggtga ttcaggatcc tcaaagcatt ttaaccttgc cgcttaaaac 1500
ccaatttacc gtgaaatggg aattttgctg cattgtttaa ctgtagtgga aaccatgcta 1560
tagtaataaa ggttatataa gagagaaatt gaaattaaat gtgtttttta atttcaaaaa 1620
aaaatcaatc tttaggatga cttaaaaatt gatttgccat gtaaaatgta tctgcatttt 1680
ttacacaaaa cttgttttaa gcataaaatt ttaaaactgt actacttgat gtattataca 1740
ttttgaacca tatgtattaa accataaaca gtataatgtt gttataataa aacaggcaat 1800
aaatttataa ataaaagctg aaaaaaaaaa aaaaaaaaaa aaaa 1844

```

```

<210> 89
<211> 523
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 288, 352, 369, 398, 475, 511, 513
<223> n = A,T,C or G

```

```

<400> 89
tttttttttt tttttttagt caatccacat ttattgatca cttattatgt accaggcact 60
gggataaaga tgactgtagt tcactcacag taaggaagaa aactagcaaa taagacgatt 120
acaatatgat gtagaaaatg ctaagccaga gatatagaaa ggtcctattg ggtccttctg 180
tcaccttgct tttccacatc cctacccttc acaggccttc cctccagctt cctgcccccg 240
ctccccactg cagatcccct gggattttgc ctagagctaa acgagganat gggccccctg 300
gccctggcat gacttgaacc caaccacaga ctgggaaagg gagcctttcg anagtggatc 360
actttgatna gaaaacacat aggggaattga agagaaantc cccaaatggc caccctgtgct 420
ggtgctcaag aaaagtttgc agaattgata aatgaaggat caagggaatt aatanatgaa 480
taattgaatg gtggctcaat aagaatgact ncnttgaatg acc 523

```

```

<210> 90
<211> 604
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 563
<223> n = A,T,C or G

```

```

<400> 90
ccagtgtggt ggaatgcaaa gattaccccg gaagctttcg agaagctggg attccctgca 60
gcaaaggaaa tagccaatat gtgtcgtttc tatgaaatga agccagaccg agatgtcaat 120
ctcaccacc aactaaatcc caaagtcaaa agcttcagcc agtttatctc agagaaccag 180
gggagccttc aagggcattg agaaaatcag ctgttcagat aggcctctgc accacacagc 240
ctctttcctc tctgatcctt ttccctctta cggcacaaca ttcattgttg acagaacatg 300
ctggaatgca attgtttgca acaccgaagg atttcctgcg gtcgcctctt cagtaggaag 360
cactgcattg gtgataggac acggtaattt gattcacatt taacttgcta gttagtata 420
aggggtggtg cacctgtttg gtaaaatgag aagcctcgga aacttgggag cttctctcct 480
accactaatg gggagggcag attattactg ggatttctcc tgggggtgaat taatttcaag 540
ccctaattgc tgaaattccc ctnggcaggc tccagttttc tcaactgcat tgcaaaattc 600
cccc 604

```

<210> 91
 <211> 858
 <212> DNA
 <213> Homo sapiens

<220>

<221> misc_feature

<222> 570, 591, 655, 664, 667, 683, 711, 759, 760, 765, 777, 787,
 792, 794, 801, 804, 809, 817, 820

<223> n = A,T,C or G

<400> 91

```

tttttttttt ttttttttta tgattattat ttttttttatt gatctttaca tcctcagtgt 60
tggcagagtt tctgatgctt aataaacatt tgttctgac agataagtgg aaaaaattgt 120
catttcctta ttcaagccat gcttttctgt gatattctga tcctagttga acatacagaa 180
ataaatgtct aaaacagcac ctcgattctc gtctataaca ggactaagtt cactgtgatc 240
ttaaataagc ttggctaaaa tgggacatga gtggaggtag tcacacttca gcgaagaaag 300
agaatctcct gtataatctc accaggagat tcaacgaatt ccaccacact ggactagtgg 360
atcccccggt ctgcaggaat tcgatatcaa gcttatcgat accgtcgacc tcgagggggg 420
gcccggtacc caattcgccc tatagttagt cgtattacgc gcgctcactg gccgtcgttt 480
tacaacgtcg tgactgggaa aaccctggcg ttaccctaact taatcgccct gcagcacatc 540
cccctttcgc cagctggcgt aatagcgaan agcccgcacc gatcgccctt ncaacagttg 600
cgcagcctga atggcgaatg ggacgcgcc tgtagcggcg cattaaagcg cggcnggggtg 660
tggnggntcc cccacgtgac cgntacactt ggcagcgctt tacgccggtc nttecgctttc 720
ttcccttctt ttctcgcacc gtctcgccgg tttccccgnn agctnttaat cgggggnctc 780
cctttanggg tncnaattaa nggnttacng gaccttngan cccaaaaact ttgattaggg 840
ggaagggtccc cgaagggg                                     858

```

<210> 92
 <211> 585
 <212> DNA
 <213> Homo sapiens

<220>

<221> misc_feature

<222> 317, 319, 320, 321, 325, 327, 328, 330, 331, 332, 460, 462,
 483, 485, 487, 523, 538, 566, 584

<223> n = A,T,C or G

<400> 92

```

gttgaatctc ctggtgagat tatacaggag attctctttc ttcgctgaag tgtgactacc 60
tccactcatg tcccatttta gccaagctta ttttaagatca cagtgaactt agtcctgtta 120
tagacgagaa tcgagggtgct gtttttagaca tttatttctg tatgttcaac taggatcaga 180
atatcacaga aaagcatggc ttgaataagg aaatgacaat tttttccact tatctgatca 240
gaacaaatgt ttattaagca tcagaaaact tgccaacact gaggatgtaa agatcaataa 300
aaaaaataat aatcatnann naaanannan nngaaggcg gccgccaccg cgggtggagct 360
ccagcttttg ttcccttttag tgagggttaa ttgcgcgctt ggcgttaatc atggtcatag 420
ctgtttcctg tgtgaaattg ttatccggct cacaattccn cncaacatac gagccgggaa 480
gcntnangtg taaaagcctg ggggtgccta attgagtgag ctnactcaca ttaattgngt 540
tgcgctccac ttgcccgtt ttccantccg ggaaacctgt tcgnc                                     585

```

<210> 93
 <211> 567

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<210>	95
<211>	470
<212>	DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 61, 67, 79, 89, 106, 213, 271, 281, 330, 354, 387, 432, 448

<223> n = A,T,C or G

<400> 95

```
ctcgaccttc tctgcacagc ggatgaaccc tgagcagctg aagaccagaa aagccactat 60
nactttntgc ttaattcang agcttacang attcttcaaa gagtgngtcc agcatccttt 120
gaaacatgag ttcttaccag cagaagcaga cctttacccc accacctcag cttcaacagc 180
agcagggtgaa acaacccatc cagcctccac ctnaggaaat atttggtccc acaaccaagg 240
agccatgccca ctcaaagggt ccacaacctg naaacacaaa nattccagag ccaggctgta 300
ccaagggtccc tgagccaggg ctgtaccaan gtccctgagc cagggtgtac caangtcctt 360
gagccaggat gtaccaagggt ccctgancca ggttgtccaa ggtccctgag ccaggctaca 420
ccaagggcct gngccaggca gcatcaangt ccctgaccaa ggcttatcaa 470
```

<210> 96

<211> 660

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 299, 311, 360, 426, 538, 540, 542, 553, 563, 565, 592, 603, 604, 618, 633, 647, 649, 651, 653

<223> n = A,T,C or G

<400> 96

```
tttttttttt tttttttttt ggaattaaaa gcaatttaat gagggcagag caggaaacat 60
gcattttcttt tcattcgaat cttcagatga accctgagca gccgaagacc agaaaagcca 120
tgaagacttt ctgcttaatt caggggctta caggattctt cagagtgtgt gtgaacaaaa 180
gctttatagt acgtattttt aggatacaaa taagagagag actatggctt ggggtgagaa 240
tgtactgatt acaagggtcta cagacaatta agacacagaa acagatggga agaggggtgnc 300
cagcatctgg nggttggtct ctcaagggtt tgtctgtgca ccaaattact tctgcttggn 360
cttctgctga gctgggcctg gagtgaccgt tgaaggacat ggctctggta cctttgtgta 420
gcctgncaca ggaactttgg tgtatccttg ctccaggaact ttgatggcac ctggctcagg 480
aaacttgatg aagccttggt caaggacctt tgatgcttgc tggctcaggg accttggnng 540
ancctgggct caggacctt tgnncnaacc ttggcttcaa gggacccttg gnacatcctg 600
gcnnagggac ccttggnncc aacctggggt ttnagggacc ctttggnntnc nanccttggc 660
```

<210> 97

<211> 441

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 12, 308

<223> n = A,T,C or G

<400> 97

```
gggaccatac anagtattcc tctcttcaca ccaggaccag ccactgttgc agcatgagtt 60
```

1000700-1300


```

cccagcagca gaagcagccc tgcacccac cccctcagct tcagcagcag caggtgaaac 120
agccttgcca gcctccacct caggaacat gcatcccaa aaccaaggag ccctgccacc 180
ccaaggtgcc tgagccctgc caccctaaag tgcttgagcc ctgccagccc aaggttccag 240
agccatgcca cccaaggtg cctgagccct gcccttcaat agtcactcca gcaccagccc 300
agcagaanac caagcagaag taatgtggtc cacagccatg cccttgagga gccggccacc 360
agatgctgaa tcccctatcc cattctgtgt atgagtccea tttgccttgc aattagcatt 420
ctgtctcccc caaaaaaaaa a 441

```

```

<210> 98
<211> 600
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 295, 349, 489, 496, 583
<223> n = A,T,C or G

```

```

<400> 98
gtattcctct cttcacacca ggaccagcca ctgttgcagc atgagttccc agcagcagaa 60
gcagccctgc atcccacccc ctcagcttca gcagcagcag gtgaaacagc cttgccagcc 120
tccacctcag gaacctatgca tccccaaaac caaggagccc tgccacccca aggtgcctga 180
gccctgccac cccaaagtgc ctgagccctg ccagcccaag gttccagagc catgccaccc 240
caaggtgcct gagccctgcc cttcaatagt cactccagca ccagcccagc agaanaccaa 300
gcagaagtaa tgtgggtccac agccatgccc ttgaggagcc ggccaccana tgctgaatcc 360
cctatcccat tctgtgtatg agtcccattt gccttgcaat tagcattctg tctcccccaa 420
aaaagaatgt gctatgaagc tttctttcct acacactctg agtctctgaa tgaagctgaa 480
ggtcttaant acaganctag ttttcagctg ctcagaattc tctgaagaaa agatttaaga 540
tgaaaggcaa atgattcagc tccttattac cccattaaat tcnctttcaa ttccaaaaaa 600

```

```

<210> 99
<211> 667
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 345, 562, 635
<223> n = A,T,C or G

```

```

<400> 99
actagtgact gagttcctgg caaagaaatt tgacctggac cagttgataa ctcatgtttt 60
accatttaaa aaaatcagtg aaggatttga gctgctcaat tcaggacaaa gcattcgaac 120
ggtcctgacg ttttgagatc caaagtggca ggaggtctgt gttgtcatgg tgaactggag 180
tttctcttgt gagagttccc tcatctgaaa tcatgtatct gtctcacaaa tacaagcata 240
agtagaagat ttgttgaaga catagaaccc ttataaagaa ttattaacct ttataaacat 300
ttaaagtcct gtgagcacct ggggaattagt ataataacaa tgttnatatt tttgatttac 360
atthttgtaag gctataattg tatcttttaa gaaaacatac cttggatttc tatgttgaaa 420
tgagagattt taagagtttt aaccagctgc tgcagatata ttactcaaaa cagatatagc 480
gtataaagat atagtaaatt catctcctag agtaatatc acttaacaca ttggaaacta 540
ttatttttta gatttgaata tnaatgttat tttttaaaca cttgttatga gttacttggg 600
attacatttt gaaatcagtt cattccatga tgcanattac tgggattaga ttaagaaaga 660
cggaaaa 667

```

10007001301


```
<220>
<221> misc_feature
<222> 404, 506, 514, 527, 528, 538, 548, 556, 568, 569
<223> n = A,T,C or G
```

```
<210> 101
<211> 592
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 218, 497, 502, 533, 544, 546, 548, 550, 555  
<223> n = A,T,C or G
```

```
<210> 102
<211> 587
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 91, 131, 256, 263, 332, 392, 400, 403, 461, 496, 497, 499,
510, 511, 518, 519, 539, 554, 560, 576
```

gcacctgctc	tcaatccnnc	tctcaccatg	atcctccgcc	tgcanaaaact	cctctgccaa	60
ctatggangt	ggtttcnggg	gtggctcttg	ccaactggga	agaagccgtg	gtgtctctac	120
ctgttcaact	cngtttgtgt	ctgggggatc	aactnggggc	tatggaagcg	gctnaactgt	180
tgttttggtg	gaaggqctg	taattggctt	tgggaagtng	cttatngaag	ttggcctngg	240

<400> 106										
cattggt	nct	ttcattt	gct	ntggaagt	gt	nnatctctaa	cagtggacaa	agttcccngt	60	
gccttaa	aact	ctgtnac	act	tttgga	ant	gaaaant	ttng	tantatgata	ggttattctg	120
angtan	agat	gttctg	gata	ccattan	atn	tgcccc	cngt	gtcagaggct	catattgtgt	180
tatgtaa	atg	gtatnt	catt	cgctact	atn	antcaat	ttng	aaatanggtc	tttgggttat	240
gaatan	tnng	cagcnc	anct	nanang	ctgt	ctgtng	tatt	cattgtggtc	atagcacctc	300
acancat	tgt	aacctc	nate	nagtga	gaca	nactag	naan	ttcctagtga	tggctcanga	360
ttccaaa	atg	nctcat	ntcn	aatgtt	ttaa	agttan	ttaa	gtgtaagaaa	tacagactgg	420
atgttcc	acc	aactag	tacc	tgtaat	gacn	ggcctg	tccc	aacacatctc	ccttttccat	480
gactgtg	ggt	ncccg	catcg	gaaaaa						506

```
<220>
<221> misc_feature
<222> 289, 317, 378
<223> n = A,T,C or G
```

```
<210> 108
<211> 502
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 22, 31, 126, 168, 183, 205, 219, 231, 236, 259, 283, 295,
296, 298, 301, 340, 354, 378, 383, 409, 433, 446, 455, 466,
488
<223> n = A,T,C or G
```

<400> 108						
atcttcttcc	cttaattagt	tnttatttat	ntattaaatt	ttattgcatg	tcctggcaaa	60
caaaaagaga	ttgtagattg	gcttctggct	ccccaaaagc	ccataacaga	aagtaccaca	120
agaccncaac	tgaagcttaa	aaaatctatc	acatgtataa	tacctttinga	agaacattaa	180
tanagcatat	aaaactttta	acatntgctt	aatgttgtn	aattataaaa	ntaatngaaa	240
aaaatgtccc	tttaacatnc	aatatccac	atagtgttat	ttnaggggat	taccnngnaa	300
naaaaaaagg	gtagaaggga	tttaatgaaa	actctgcttn	ccatttctgt	ttanaaacgt	360
ctccagaaca	aaaacttntc	aantctttca	gctaaccgca	tttgagctna	ggccactcaa	420
aaactccatt	agnccactt	tctaanggtc	tctanagctt	actaancctt	ttgacccctt	480
accctgqnta	ctcctgccct	ca				502

```
<210> 109
<211> 1308
<212> DNA
<213> Homo sapiens
```

```
<400> 109
acccgagggtc tgcctaaaat catcatggat tcaattggcg ccgtcagcac tgcacttggg 60
tttgatcttt tcaaagagct gaagaaaaca aatgatggca acatcttctt ttccctgtg 120
ggcatcttga ctgcaattgg catggtcttc ctggggaccc gaggagccac cgcttcccag 180
ttggaggagg tgtttcactc tgaaaaagag acgaagagct caagaataaa ggctgaagaa 240
aaagaggtga ttgagaacac aqaagcagta catcaacaat tccaaaagtt tttgactgaa 300
```

```

ataagcaaac tcactaatga ttatgaactg aacataacca acaggctggt tggagaaaaa 360
acatacctct tccttcaaaa atacttagat tatgttgaaa aatattatca tgcattctctg 420
gaacctgttg attttgtaaa tgcagccgat gaaagtcgaa agaagattaa ttcctggggtt 480
gaaagcaaaa caaatgaaaa aatcaaggac ttgttcccag atggctctat tagtagctct 540
accaagctgg tgctgggtgaa catgggtttat tttaaagggc aatgggacag ggagtttaag 600
aaagaaaata ctaaggaaga gaaatttttg atgaataaga gcacaagtaa atctgtacag 660
atgatgacac agagccattc cttagcttc actttcctgg aggacttgca ggccaaaatt 720
ctagggattc catataaaaa caacgaccta agcatgtttg tgcttctgcc caacgacatc 780
gatggcctgg agaagataat agataaaaata agtcctgaga aattggtaga gtggactagt 840
ccagggcata tggaagaaag aaaggtgaat ctgcacttgc cccggtttga ggtggaggac 900
agttacgatc tagaggcggg cctggctgcc atggggatgg gcgatgcctt cagtgagcac 960
aaagccgact actcgggaat gtcgtcaggc tccgggttgt acgcccagaa gttcctgcac 1020
agttcctttg tggcagtaac tgaggaaggc accgaggctg cagctgccac tggcataggc 1080
tttactgtca catccgcccc aggtcatgaa aatgttact gcaatcatcc cttcctgttc 1140
ttcatcaggc acaatgaatc caacagcatc ctcttcttcg gcagattttc ttctccttaa 1200
gatgatcggt gccatggcat tgctgctttt agcaaaaaac aactaccagt gttactcata 1260
tgattatgaa aatcgtccat tcttttaaatt ggtggctcac ttgcattt 1308

```

```

<210> 110
<211> 391
<212> PRT
<213> Homo sapiens

```

```

<400> 110
Met Asp Ser Leu Gly Ala Val Ser Thr Arg Leu Gly Phe Asp Leu Phe
 1          5          10          15
Lys Glu Leu Lys Lys Thr Asn Asp Gly Asn Ile Phe Phe Ser Pro Val
          20          25          30
Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
          35          40          45
Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
          50          55          60
Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Ile Glu Asn Thr Glu
65          70          75          80
Ala Val His Gln Gln Phe Gln Lys Phe Leu Thr Glu Ile Ser Lys Leu
          85          90          95
Thr Asn Asp Tyr Glu Leu Asn Ile Thr Asn Arg Leu Phe Gly Glu Lys
          100          105          110
Thr Tyr Leu Phe Leu Gln Lys Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr
          115          120          125
His Ala Ser Leu Glu Pro Val Asp Phe Val Asn Ala Ala Asp Glu Ser
          130          135          140
Arg Lys Lys Ile Asn Ser Trp Val Glu Ser Lys Thr Asn Glu Lys Ile
145          150          155          160
Lys Asp Leu Phe Pro Asp Gly Ser Ile Ser Ser Ser Thr Lys Leu Val
          165          170          175
Leu Val Asn Met Val Tyr Phe Lys Gly Gln Trp Asp Arg Glu Phe Lys
          180          185          190
Lys Glu Asn Thr Lys Glu Glu Lys Phe Trp Met Asn Lys Ser Thr Ser
          195          200          205
Lys Ser Val Gln Met Met Thr Gln Ser His Ser Phe Ser Phe Thr Phe
210          215          220
Leu Glu Asp Leu Gln Ala Lys Ile Leu Gly Ile Pro Tyr Lys Asn Asn
225          230          235          240

```

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Asp Leu Ser Met Phe Val Leu Leu Pro Asn Asp Ile Asp Gly Leu Glu
 245 250 255
 Lys Ile Ile Asp Lys Ile Ser Pro Glu Lys Leu Val Glu Trp Thr Ser
 260 265 270
 Pro Gly His Met Glu Glu Arg Lys Val Asn Leu His Leu Pro Arg Phe
 275 280 285
 Glu Val Glu Asp Ser Tyr Asp Leu Glu Ala Val Leu Ala Ala Met Gly
 290 295 300
 Met Gly Asp Ala Phe Ser Glu His Lys Ala Asp Tyr Ser Gly Met Ser
 305 310 315 320
 Ser Gly Ser Gly Leu Tyr Ala Gln Lys Phe Leu His Ser Ser Phe Val
 325 330 335
 Ala Val Thr Glu Glu Gly Thr Glu Ala Ala Ala Thr Gly Ile Gly
 340 345 350
 Phe Thr Val Thr Ser Ala Pro Gly His Glu Asn Val His Cys Asn His
 355 360 365
 Pro Phe Leu Phe Phe Ile Arg His Asn Glu Ser Asn Ser Ile Leu Phe
 370 375 380
 Phe Gly Arg Phe Ser Ser Pro
 385 390

<210> 111

<211> 1419

<212> DNA

<213> Homo sapiens

<400> 111

ggagaactat aaattaagga tcccagctac ttaattgact tatgcttcct agttcgttgc 60
 ccagccacca ccgtctctcc aaaaacccga ggtctcgcta aaatcatcat ggattcactt 120
 ggcgccgtca gcactcgact tgggtttgat cttttcaaag agctgaagaa aacaaatgat 180
 ggcaacatct tcttttcccc tgtgggcac ttgactgcaa ttggcatggt cctcctgggg 240
 acccgaggag ccaccgcttc ccagttggag gaggtgttct actctgaaaa agagacgaag 300
 agctcaagaa taaaggctga agaaaaagag gtggttaagaa taaaggctga aggaaaagag 360
 attgagaaca cagaagcagt acatcaacaa ttccaaaagt ttttgactga aataagcaaa 420
 ctactaatg attatgaact gaacataacc aacaggctgt ttggagaaaa aacatacctc 480
 ttccttcaaa aatacttaga ttatgttgaa aaatattatc atgcatctct ggaacctgtt 540
 gattttgtaa atgcagccga tgaaagtcga aagaagatta attcctgggt tgaaagcaaa 600
 acaaatgaaa aaatcaagga cttgttccca gatggctcta ttagtagctc taccaagctg 660
 gtgctggtga acatgggttta ttttaaaggg caatgggaca gggagtttaa gaaagaaaat 720
 actaaggaag agaaattttg gatgaataag agcacaagta aatctgtaca gatgatgaca 780
 cagagccatt ccttttagctt cactttcctg gaggacttgc aggccaaaat tctagggatt 840
 ccatataaaa acaacgacct aagcatgttt gtgcttctgc ccaacgacat cgatggcctg 900
 gagaagataa tagataaaat aagtcctgag aaattggtag agtggactag tccagggcat 960
 atggaagaaa gaaagggtgaa tctgcacttg ccccggtttg aggtggagga cagttacgat 1020
 ctagaggcgg tcctggctgc catggggatg ggcgatgcct tcagttagca caaagccgac 1080
 tactcgggaa tgtcgtcagg ctccgggttg tacgccaga agttcctgca cagttccttt 1140
 gtggcagtaa ctgaggaagg caccgaggct gcagctgcca ctggcatagg ctttactgtc 1200
 acatccgccc caggtcatga aaatgttcac tgcaatcatc ctttcctgtt cttcatcagg 1260
 cacaatgaat ccaacagcat cctcttcttc ggcagatttt cttctcctta agatgatcgt 1320
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 aaatcgacca ttcttttaaa tggtggctca cttgcattt 1419

<210> 112

<211> 400
 <212> PRT
 <213> Homo sapiens

<400> 112

Met	Asp	Ser	Leu	Gly	Ala	Val	Ser	Thr	Arg	Leu	Gly	Phe	Asp	Leu	Phe
1				5					10					15	
Lys	Glu	Leu	Lys	Lys	Thr	Asn	Asp	Gly	Asn	Ile	Phe	Phe	Ser	Pro	Val
			20					25					30		
Gly	Ile	Leu	Thr	Ala	Ile	Gly	Met	Val	Leu	Leu	Gly	Thr	Arg	Gly	Ala
		35				40					45				
Thr	Ala	Ser	Gln	Leu	Glu	Glu	Val	Phe	His	Ser	Glu	Lys	Glu	Thr	Lys
	50				55						60				
Ser	Ser	Arg	Ile	Lys	Ala	Glu	Glu	Lys	Glu	Val	Val	Arg	Ile	Lys	Ala
65				70						75					80
Glu	Gly	Lys	Glu	Ile	Glu	Asn	Thr	Glu	Ala	Val	His	Gln	Gln	Phe	Gln
			85			90							95		
Lys	Phe	Leu	Thr	Glu	Ile	Ser	Lys	Leu	Thr	Asn	Asp	Tyr	Glu	Leu	Asn
			100					105					110		
Ile	Thr	Asn	Arg	Leu	Phe	Gly	Glu	Lys	Thr	Tyr	Leu	Phe	Leu	Gln	Lys
	115					120						125			
Tyr	Leu	Asp	Tyr	Val	Glu	Lys	Tyr	Tyr	His	Ala	Ser	Leu	Glu	Pro	Val
	130					135					140				
Asp	Phe	Val	Asn	Ala	Ala	Asp	Glu	Ser	Arg	Lys	Lys	Ile	Asn	Ser	Trp
145				150						155					160
Val	Glu	Ser	Lys	Thr	Asn	Glu	Lys	Ile	Lys	Asp	Leu	Phe	Pro	Asp	Gly
			165			170							175		
Ser	Ile	Ser	Ser	Ser	Thr	Lys	Leu	Val	Leu	Val	Asn	Met	Val	Tyr	Phe
			180				185						190		
Lys	Gly	Gln	Trp	Asp	Arg	Glu	Phe	Lys	Lys	Glu	Asn	Thr	Lys	Glu	Glu
	195					200					205				
Lys	Phe	Trp	Met	Asn	Lys	Ser	Thr	Ser	Lys	Ser	Val	Gln	Met	Met	Thr
	210				215						220				
Gln	Ser	His	Ser	Phe	Ser	Phe	Thr	Phe	Leu	Glu	Asp	Leu	Gln	Ala	Lys
225				230						235					240
Ile	Leu	Gly	Ile	Pro	Tyr	Lys	Asn	Asn	Asp	Leu	Ser	Met	Phe	Val	Leu
			245						250					255	
Leu	Pro	Asn	Asp	Ile	Asp	Gly	Leu	Glu	Lys	Ile	Ile	Asp	Lys	Ile	Ser
		260					265						270		
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<212> DNA

<213> Homo sapiens

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<211> 2294

<212> DNA

<213> Homo sapiens

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<211> 956
<212> DNA
<213> Homo sapiens
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<210> 125


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<211> 3552
<212> DNA
<213> Homo sapiens
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<211> 754

<212> DNA

<213> Homo sapiens

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<211> 374
 <212> DNA
 <213> Homo sapiens

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 <211> 546
 <212> DNA
 <213> Homo sapiens

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<210> 130
 <211> 5156
 <212> DNA
 <213> Homo sapiens

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<211> 671
<212> DNA
<213> Homo sapiens

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<210> 132
<211> 590
<212> DNA
<213> Homo sapiens

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<210> 133

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<400> 133

<210> 134

<211> 4797

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> 135, $\bar{501}$, 4421, 4467, 4468, 4698

<223> n = A, T, C or G

<400> 134

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<210> 135
 <211> 2856
 <212> DNA
 <213> Homo sapiens

<400> 135

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1000700-11001

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agccttggaagggtcactga aaaatcttca attggattat gttgacctct accttattca 180
```

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<210> 140
<211> 370
<212> DNA
<213> Homo sapiens
```

<400> 140						
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tgaattccca	agccctgcat	tgtacagccc	cccactcccc	tcaccaccta	ataaaggaat	300
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gcacactggc						370

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<210> 141
<211> 371
<212> DNA
<213> Homo sapiens
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catggagctg ggagccggca gtgtctgcag cataactagg gagggggtcgt gatccagatg 300
cgatgaactg gccctggcag gcacagtgct gactcatctc ttggcgacct gcccgggcgg 360
ccqctcqaaq c 371
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<210> 142
<211> 343
<212> DNA
<213> Homo sapiens
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tctttgggat gtgggcatte aaccacaga ggagaacttc atttgataga gcagttttga 300
aacacccttt ttqtagaatc tacaggtgga catttagagt gct 343
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<210> 143
<211> 354
<212> DNA
<213> Homo sapiens
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catcaggagt gggatgggaa ggaagcaca ataacaagaa aattgaaaga tgggaaatta 120
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```
<400> 147
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tactatgcac gtgctgtgat tttgaacata actcgtccca aaaacttgtc acgatcatcc 120
tgacttttta ggttggctga tccatcaatc ttgcactcaa ctgttacttc tttcccagtg 180
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ttgttaggag caaagctgac ctgaacagca accaatggct gtagataccc aacatgcagt 240
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acatttggtg tatcttcatt ctttgaaaca caatctatcc ttggcactcc ttcag      355

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<210> 148
<211> 369
<212> DNA
<213> Homo sapiens

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<400> 148
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```

```

<210> 149
<211> 620
<212> DNA
<213> Homo sapiens

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```

<220>
<221> misc_feature
<222> 169, 171, 222, 472, 528, 559, 599
<223> n = A,T,C or G

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<400> 149
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gtgaaactta acactttata aggtaaaaat gaggtttcca anatttaata atctgatcaa 240
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```

```

<210> 150
<211> 371
<212> DNA
<213> Homo sapiens

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aaaatttaat tttagggaat catttctata ttttcacata ttagtatta ttatttcctt 240
atatgtgtaa ggtgaaattt atgggtatttg agtgtgcaag aaaatatatt tttaaagcct 300
tcatttttcc ccagtggaat gatttagaat tttttatgta aatatacaga atgttttttc 360
ttacttttat a                                     371

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<400> 151						
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<211> 586

<212> PRT

<213> Homo sapiens

<400> 152

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Gly	Ser	Ser	Ser	Thr	Ser	Pro	Tyr	Asn	Thr	Asp	His	Ala	Gln	Asn	Ser
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Val	Thr	Ala	Pro	Ser	Pro	Tyr	Ala	Gln	Pro	Ser	Ser	Thr	Phe	Asp	Ala
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Leu	Ser	Pro	Ser	Pro	Ala	Ile	Pro	Ser	Asn	Thr	Asp	Tyr	Pro	Gly	Pro
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His	Ser	Phe	Asp	Val	Ser	Phe	Gln	Gln	Ser	Ser	Thr	Ala	Lys	Ser	Ala
			85					90						95	
Thr	Trp	Thr	Tyr	Ser	Thr	Glu	Leu	Lys	Lys	Leu	Tyr	Cys	Gln	Ile	Ala
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1007700 : 1300

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10007000-13001


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<210> 155

<211> 153

<212> PRT

<213> Homo sapiens

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Val Met Ile Leu Val Val Ala Ala Gln Glu Val Trp Gly Asp Glu Gln
      35          40          45
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Glu Asp Phe Val Cys Asn Thr Leu Gln Pro Gly Cys Lys Asn Val Cys
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1000700-13001


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 <212> PRT
 <213> Homo sapiens

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Val	Gln	Leu	Gln	Asp	Asn	Gly	Tyr	Asn	Gly	Leu	Leu	Ile	Ala	Ile	Asn
		35					40					45			
Pro	Gln	Val	Pro	Glu	Asn	Gln	Asn	Leu	Ile	Ser	Asn	Ile	Lys	Glu	Met
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Ile	Thr	Glu	Ala	Ser	Phe	Tyr	Leu	Phe	Asn	Ala	Thr	Lys	Arg	Arg	Val
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Phe	Phe	Arg	Asn	Ile	Lys	Ile	Leu	Ile	Pro	Ala	Thr	Trp	Lys	Ala	Asn
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Phe	Leu	Leu	Asn	Asp	Asn	Leu	Thr	Ala	Gly	Tyr	Gly	Ser	Arg	Gly	Arg
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Val	Phe	Val	His	Glu	Trp	Ala	His	Leu	Arg	Trp	Gly	Val	Phe	Asp	Glu
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			180					185					190		
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Gly	Cys	Thr	Phe	Ile	Tyr	Asn	Ser	Thr	Gln	Asn	Ala	Thr	Ala	Ser	Ile
					230					235					240
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Phe	Pro	Met	Asn	Gly	Thr	Glu	Leu	Pro	Pro	Pro	Pro	Thr	Phe	Ser	Leu
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Val	Glu	Ala	Gly	Asp	Lys	Val	Val	Cys	Leu	Val	Leu	Asp	Val	Ser	Ser
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Lys	Met	Ala	Glu	Ala	Asp	Arg	Leu	Leu	Gln	Leu	Gln	Gln	Ala	Ala	Glu
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Phe	Tyr	Leu	Met	Gln	Ile	Val	Glu	Ile	His	Thr	Phe	Val	Gly	Ile	Ala
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100070073001

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 420 425 430
 Val Leu Ser Ser Gly Ser Thr Ile His Ser Ile Ala Leu Gly Ser Ser
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 Ala Ala Pro Asn Leu Glu Glu Leu Ser Arg Leu Thr Gly Gly Leu Lys
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 Ser Arg Ile Ser Ser Gly Thr Gly Asp Ile Phe Gln Gln His Ile Gln
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 Thr Val Thr Val Asp Asn Thr Val Gly Asn Asp Thr Met Phe Leu Val
 515 520 525
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 Pro Gln Val Pro Glu Asn Gln Asn Leu Ile Ser Asn Ile Lys Glu Met
 50 55 60
 Ile Thr Glu Ala Ser Phe Tyr Leu Phe Asn Ala Thr Lys Arg Arg Val
 65 70 75 80
 Phe Phe Arg Asn Ile Lys Ile Leu Ile Pro Ala Thr Trp Lys Ala Asn
 85 90 95
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 Val Thr Asp Trp Tyr Gly Ala His Gly Asp Asp Pro Tyr Thr Leu Gln
 115 120 125
 Tyr Arg Gly Cys Gly Lys Glu Gly Lys Tyr Ile His Phe Thr Pro Asn
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 Phe Leu Leu Asn Asp Asn Leu Thr Ala Gly Tyr Gly Ser Arg Gly Arg
 145 150 155 160

1000/700-1300

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 Tyr Asn Asn Asp Lys Pro Phe Tyr Ile Asn Gly Gln Asn Gln Ile Lys
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 Val Thr Arg Cys Ser Ser Asp Ile Thr Gly Ile Phe Val Cys Glu Lys
 195 200 205
 Gly Pro Cys Pro Gln Glu Asn Cys Ile Ile Ser Lys Leu Phe Lys Glu
 210 215 220
 Gly Cys Thr Phe Ile Tyr Asn Ser Thr Gln Asn Ala Thr Ala Ser Ile
 225 230 235 240
 Met Phe Met Gln Ser Leu Ser Ser Val Val Glu Phe Cys Asn Ala Ser
 245 250 255
 Thr His Asn Gln Glu Ala Pro Asn Leu Gln Asn Gln Met Cys Ser Leu
 260 265 270
 Arg Ser Ala Trp Asp Val Ile Thr Asp Ser Ala Asp Phe His His Ser
 275 280 285
 Phe Pro Met Asn Gly Thr Glu Leu Pro Pro Pro Pro Thr Phe Ser Leu
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 Val Glu Ala Gly Asp Lys Val Val Cys Leu Val Leu Asp Val Ser Ser
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 Lys Met Ala Glu Ala Asp Arg Leu Leu Gln Leu Gln Gln Ala Ala Glu
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 Ser Phe Asp Ser Lys Gly Glu Ile Arg Ala Gln Leu His Gln Ile Asn
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 Val Leu Ser Ser Gly Ser Thr Ile His Ser Ile Ala Leu Gly Ser Ser
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 Ala Ala Pro Asn Leu Glu Glu Leu Ser Arg Leu Thr Gly Gly Leu Lys
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<211> 364

<212> PRT

<213> Homo sapiens

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          35          40          45
Ser Pro Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His
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Gly Ala Asn Arg Phe Val Pro Lys Ser Lys Ala Leu Glu Ala Val Lys
65          70          75          80
Leu Ala Ile Glu Ala Gly Phe His His Ile Asp Ser Ala His Val Tyr
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Gly Ser Val Lys Arg Glu Asp Ile Phe Tyr Thr Ser Lys Leu Trp Ser
          115          120          125
Asn Ser His Arg Pro Glu Leu Val Arg Pro Ala Leu Glu Arg Ser Leu
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Lys Asn Leu Gln Leu Asp Tyr Val Asp Leu Tyr Leu Ile His Phe Pro
145          150          155          160
Val Ser Val Lys Pro Gly Glu Glu Val Ile Pro Lys Asp Glu Asn Gly
          165          170          175
Lys Ile Leu Phe Asp Thr Val Asp Leu Cys Ala Thr Trp Glu Ala Met
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Glu Lys Cys Lys Asp Ala Gly Leu Ala Lys Ser Ile Gly Val Ser Asn
          195          200          205
Phe Asn His Arg Leu Leu Glu Met Ile Leu Asn Lys Pro Gly Leu Lys
          210          215          220
Tyr Lys Pro Val Cys Asn Gln Val Glu Cys His Pro Tyr Phe Asn Gln
225          230          235          240
Arg Lys Leu Leu Asp Phe Cys Lys Ser Lys Asp Ile Val Leu Val Ala
          245          250          255
Tyr Ser Ala Leu Gly Ser His Arg Glu Glu Pro Trp Val Asp Pro Asn
          260          265          270
Ser Pro Val Leu Leu Glu Asp Pro Val Leu Cys Ala Leu Ala Lys Lys
          275          280          285
His Lys Arg Thr Pro Ala Leu Ile Ala Leu Arg Tyr Gln Leu Gln Arg
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Gly Val Val Val Leu Ala Lys Ser Tyr Asn Glu Gln Arg Ile Arg Gln
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100070013001

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Cys	Gly	Leu	Ala	Cys	Glu	Arg	Cys	Arg	Trp	Ile	Leu	Pro	Leu	Leu	Leu			
	50					55					60							
Leu	Ser	Ala	Ile	Ala	Phe	Asp	Ile	Ile	Ala	Leu	Ala	Gly	Arg	Gly	Trp			
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Leu	Gln	Ser	Ser	Asp	His	Gly	Gln	Thr	Ser	Ser	Leu	Trp	Trp	Lys	Cys			
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Ser	Gln	Glu	Gly	Gly	Gly	Ser	Gly	Ser	Tyr	Glu	Glu	Gly	Cys	Gln	Ser			
			100					105					110					
Leu	Met	Glu	Tyr	Ala	Trp	Gly	Arg	Ala	Ala	Ala	Ala	Met	Leu	Phe	Cys			
		115					120					125						
Gly	Phe	Ile	Ile	Leu	Val	Ile	Cys	Phe	Ile	Leu	Ser	Phe	Phe	Ala	Leu			
	130					135					140							
Cys	Gly	Pro	Gln	Met	Leu	Val	Phe	Leu	Arg	Val	Ile	Gly	Gly	Leu	Leu			
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Ala	Leu	Ala	Ala	Val	Phe	Gln	Ile	Ile	Ser	Leu	Val	Ile	Tyr	Pro	Val			
				165				170						175				
Lys	Tyr	Thr	Gln	Thr	Phe	Thr	Leu	His	Ala	Asn	Pro	Ala	Val	Thr	Tyr			
			180					185					190					
Ile	Tyr	Asn	Trp	Ala	Tyr	Gly	Phe	Gly	Trp	Ala	Ala	Thr	Ile	Ile	Leu			
		195				200						205						
Ile	Gly	Cys	Ala	Phe	Phe	Phe	Cys	Cys	Leu	Pro	Asn	Tyr	Glu	Asp	Asp			
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<211> 4181

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

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gcaaaggatt cggaaacttc agatacgaat tatcccgctt catttacagt gggagggtgct 540
ggatagttaa ctagtccagt atggagtggg ggagagctgt gagcaagtga aactgactc 600
ggaaactgca gttgtaaatg taacctattc cagtaaggac caagctagac aagcactaga 660

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aggagctgca tttaaaacct gctgggttaa attctgtcan atttcacttc tagcctttta 3960
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```

<210> 176

<211> 579

<212> PRT

<213> Homo sapiens

<400> 176

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Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro
          20          25          30
Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser
          35          40          45
Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
          50          55          60
Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
65          70          75          80
Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
          85          90          95
Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
          100          105          110
Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
          115          120          125
Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
          130          135          140
Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Met Ala Ala
145          150          155          160
Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
          165          170          175
Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys
          180          185          190
Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly
          195          200          205
Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln
          210          215          220
Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala
225          230          235          240
Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala Ala
          245          250          255
Cys Lys Ser Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys
          260          265          270
Phe Thr Glu Glu Ile Pro Leu Lys Ile Leu Ala His Asn Asn Phe Val
          275          280          285
Gly Arg Leu Ile Gly Lys Glu Gly Arg Asn Leu Lys Lys Ile Glu Gln
          290          295          300
Asp Thr Asp Thr Lys Ile Thr Ile Ser Pro Leu Gln Glu Leu Thr Leu
305          310          315          320
Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Asn Val Glu Thr Cys
          325          330          335

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1000700-11304

Ala Lys Ala Glu Glu Glu Ile Met Lys Lys Ile Arg Glu Ser Tyr Glu
 340 345 350
 Asn Asp Ile Ala Ser Met Asn Leu Gln Ala His Leu Ile Pro Gly Leu
 355 360 365
 Asn Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro
 370 375 380
 Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro Pro Tyr Pro Gln Phe
 385 390 395 400
 Glu Gln Ser Glu Thr Glu Thr Val His Gln Phe Ile Pro Ala Leu Ser
 405 410 415
 Val Gly Ala Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser
 420 425 430
 Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala Glu Ala Pro Asp
 435 440 445
 Ala Lys Val Arg Met Val Ile Ile Thr Gly Pro Pro Glu Ala Gln Phe
 450 455 460
 Lys Ala Gln Gly Arg Ile Tyr Gly Lys Ile Lys Glu Glu Asn Phe Val
 465 470 475 480
 Ser Pro Lys Glu Glu Val Lys Leu Glu Ala His Ile Arg Val Pro Ser
 485 490 495
 Phe Ala Ala Gly Arg Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu
 500 505 510
 Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr
 515 520 525
 Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr
 530 535 540
 Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val
 545 550 555 560
 Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser
 565 570 575
 Arg Arg Lys

<210> 177
 <211> 401
 <212> DNA
 <213> Homo sapiens

<400> 177
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 agatccaaac aaatacacat tctgtgtttt agctcagtgt tttctaaaaa aagaaactgc 120
 cacacagcaa aaaattgttt actttgttgg acaaaccaaa tcagttctca aaaaatgacc 180
 ggtgcttata aaaagttata aatatcgagt agctctaaaa caaaccacct gaccaagagg 240
 gaagtgaact tgtgcttagt atttacattg gatgccagtt ttgtaatcac tgacttatgt 300
 gcaaaactgg gcagaaattc tataaactct ttgctgtttt tgatacctgc tttttgtttc 360
 attttgtttt gttttgtaaa aatgataaaa cttcagaaaa t 401

<210> 178
 <211> 561
 <212> DNA
 <213> Homo sapiens

<400> 178

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<210> 179
<211> 521
<212> DNA
<213> Homo sapiens
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<210> 180
<211> 417
<212> DNA
<213> Homo sapiens
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<210> 181
<211> 283
<212> DNA
<213> Homo sapiens
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<400> 181
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caagaactca agtgtaactg tgataaaata acctttccca ggtatattgg cagggtatgtg 120
```

```

tgtaatctca gaatacacag gtgacataga tatgatatga caactggtaa tggtaggattc 180
atttacattg tttaacacttc tatgaccagg ccttaaggga aggtcagttt tttaaaaaaac 240
caagtagtgt cttcctacct atctccagat acatgtcaaa aaa 283

```

```

<210> 182
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<400> 182
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agaggattga gtaagtagtt ggatggcttt cataaaaaaca agaattcaag aagaggattc 180
atgctttaag aaacatttgt tatacattcc tcacaaatta tacctgggat aaaaactatg 240
tagcaggcag tgtgttttcc ttccatgtct ctctgcacta cctgcagtgt gtcctctgag 300
gctgcaagtc tgtcctatct gaattcccag cagaagcact aagaagctcc accctatcac 360
ctagcagata aaactatggg gaaaacttaa atctgtgcat a 401

```

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<210> 183
<211> 366
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 325
<223> n = A,T,C or G

```

```

<400> 183
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accatcatgc tttgatgttc ccctgtcttt ctctcttctg ctctcaagag caaagggttaa 120
tttaaggaca aagatgaagt cactgtaaac taatctgtca ttgtttttac cttccttttc 180
tttttcagtg cagaaattaa aagtaagtat aaagcaccgt gattgggagt gtttttgcgt 240
gtgtcggaat cactggtaaa tggttggtga gaacaatccc tccccttgca cttgtgaaaa 300
cactttgagc gctttaagag attancctga gaaataatta aatatctttt ctcttcaaaa 360
aaaaaa 366

```

```

<210> 184
<211> 370
<212> DNA
<213> Homo sapiens

```

```

<400> 184
tcttacttca aaagaaaaat aaacataaaa aataagttgc tggttcctaa caggaaaaat 60
tttaataatt gtactgagag aaactgctta cgtacacatt gcagatcaaa tatttgaggt 120
taaaatgtta gtctacatag atgggtgatt gtaactttat tgccattaaa agatttcaaa 180
ttgcattcat gcttctgtgt acacataatg aaaaatgggc aaataatgaa gatctctcct 240
tcagtctgct ctgtttaatt ctgctgtctg ctcttctcta atgctgcgtc cctaattgta 300
cacagtttag tgatatctag gagtataaag ttgtcgccca tcaataaaaa tcacaaagtt 360
ggtttaaaaa 370

```

```

<210> 185
<211> 107
<212> DNA

```

<223> n = A, T, C or G

<211> 553

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 290, 300, 411, 441
<223> n = A,T,C or G

<400> 193
tccattgtgg tgggaattcgc tctctggtaa aggcgtgcag gtggtggccg cggcctctga 60
gctgggatga gccgtgctcc cggtggaagc aaggagagcc agccggagcc atggccagta 120
cagtggtagc agttggactg accattgctg ctgcaggatt tgcaggccgt tacgttttgc 180
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ttaagttcgt attagtttat gtatatgagt actaagtttt tataataaaa tgcctcagag 540
ctacaatttt aaa 553

<210> 194
<211> 320
<212> DNA
<213> Homo sapiens

<400> 194
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atgtcacttg atatgagaat ctcaaattct aatgccttat aagcattcct tcctgtgtcc 120
attaagactc tgataattgt ctcccctcca taggaatttc tcccaggaaa gaaatatatc 180
cccattctcg ttcatatatca gaactaccgt ccccgatatt cccttcagag agattaaaga 240
ccagaaaaaa gtgagcctct tcatctgcac ctgtaatagt ttcagttcct attttcttcc 300
attgacccat atttatacct 320

<210> 195
<211> 320
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 203, 218
<223> n = A,T,C or G

<400> 195
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gtgaccagaa tctgccatgg caacaggctt taaaaaagac ccttaaaaag acactgtctc 120
aactgtggtg ttagcaccag ccagctctct gtacatttgc tagctttagt ttttctaaga 180
ctgagtaaac ttcttatttt tanaaagggg aggctggnnt gtaactttcc ttgtacttaa 240
ttgggtaaaa gtcttttcca caaaccacca tctattttgt gaactttgtt agtcatcttt 300
tatttggtaa attatgaact 320

<210> 196
<211> 357
<212> DNA

1000/100 = 1000

<210> 199

<211> 429
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 77, 88, 134, 151, 189, 227, 274, 319
 <223> n = A,T,C or G

<400> 199
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 tacagtacct ttctcanaca ttttgtanaa ttcatttcgg cagctcacta ggattttgct 120
 gaacattaaa aagngtgata gcgatattag ngccaatcaa atggaaaaaa ggtagtctta 180
 ataaacaana cacaacgttt ttatacaaca tacttttaaa tattaanaaa actccttaat 240
 attgtttcct attaatgatt attccttggg caanattttc tgatgctttt gatttttctt 300
 caatttagca tttgctttng gtttttttct ctatttagca ttctgttaag gcacaaaaac 360
 tatgtactgt atgggaaatg ttgtaaatat taccttttcc acatttttaa cagacaactt 420
 tgaatccaa 429

<210> 200
 <211> 279
 <212> DNA
 <213> Homo sapiens

<400> 200
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 ttttattaca agtattacta gagtagtggt tctactctaa gatttcaaaa gtgcatttaa 180
 aatcatacat gttcccgctt gcaaatatat tggtattttg gtggagaaaa aaatagtata 240
 ttctacataa aaaattaaag atattaacta agaaaaaaa 279

<210> 201
 <211> 569
 <212> DNA
 <213> Homo sapiens

<400> 201
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 attgttaaag cacacacctg cacaagaagc agtgatgggt gcattttacat ttcctgggtg 120
 cacaaaaaaa aattctcaaa aagcaaggac ttacgctttt tgcaaagcct ttgagaagtt 180
 actggatcat aggaagctta taacaagaat ggaagattct taaataactc actttctttg 240
 gtatccagta acagtagatg ttcaaaatat gtagctgatt aataccagca ttgtgaacgc 300
 tgtacaacct tgtgggtatt actaagcaag ttactactag cttctgaaaa gtagcttcat 360
 aattaatggt atttatacac tgccttccat gacttttact ttgccctaag ctaatctcca 420
 aaatctgaaa tgctactcca atatcagaaa aaaaggggga ggtggaatta tatttcctgt 480
 gattttaaga gtacagagaa tcatgcacat ctctgattag ttcatatatg tctagtgtgt 540
 aataaaagtc aaagatgaac tctcaaaaa 569

<210> 202
 <211> 501
 <212> DNA
 <213> Homo sapiens

<400> 202

1000700-13001

```
<210> 203
<211> 261
<212> DNA
<213> Homo sapiens
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```
<400> 203
gacaagctcc tggctctgag atgtcttctc gttaangaga tgggcctttt ggaggtaaag 60
gataaaatga atgagttctg tcatgattca ctattntata acttgc atga cttttactgt 120
gttagctctt tgaatgttct tgaaatttta gactttcttt gtaaacaaat gatatgtcct 180
tatcattgta taaaagctgt tatgtgcaac agtgtggaga ttccttgtct gatttaataa 240
aatacttaaa cactqaaaaa a 261
```

```
<210> 204
<211> 421
<212> DNA
<213> Homo sapiens
```

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<400> 204
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caacaataac aataaatcct aagtgtaaat cagttattct accccctacc aaggatatca 120
gcctgttttt tccctttttt ctccctggga taattgtggg cttcttccca aatttctaca 180
gcctcttttc tcttctcatg cttgagcttc cctgtttgca cgcattgcgtg tgcaggactg 240
gcttgtgtgc ttggactcgg ctccagggtg aagcatgctt tcccttggtta ctgttgga 300
aactcaaacc ttcaagccct aggtgtagcc attttgtcaa gtcattcaact gtatttttgt 360
actggcatta acaaaaaaag aagataaaat attgtaccat taaactttta taaaacttta 420
a 421
```

```
<210> 205
<211> 460
<212> DNA
<213> Homo sapiens
```

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<400> 205
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tttagtgcaa atccagagcc agcgtcggtt gcctcgagta attctttcat gggtagcttt 120
ggaaaagctc tcaggagacc tcacctagat gcctattcaa gctttggaca gccatcagat 180
tgtcagccaa gagcctttta tttgaaagct cattcttccc cagacttgga ctctgggtca 240
gaggaagatg ggaaagaaaag gacagatttt caggaagaaa atcacatttg tacctttaaa 300
cagacttttag aaaactacag gactccaaat tttcagtctt atgacttgga cacatagact 360
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gaatgagacc aaaggaaaag cttaacatac tacctcaagg tgaactttta tttaaaagag 420
agagaatctt atgtttttta aatggagtta tgaattttta 460

<210> 206

<211> 481

<212> DNA

<213> Homo sapiens

<400> 206

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tgcggaagca gtgacctctg accctgggtg accttcgctt tgagtgcctt ttgaacgctg 120
gtcccgcggg acttggtttt ctcaagctct gtctgtccaa agacgctccg gtcgaggtcc 180
cgcttgccct ggggtgatac ttgaacccca gacgcccctc tgtgctgctg tgtccggagg 240
cggccttccc atctgcctgc ccacccggag ctctttccgc cggcgcaggg tcccaagccc 300
acctcccgcc ctacgtcctg cgggtgtcgt ctgggcacgt cctgcacaca caatgcaagt 360
cctggcctcc gcgcccgcgc gccacgcga gccgtaccgc ccgccaactc tgttatttat 420
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<211> 605

<212> DNA

<213> Homo sapiens

<400> 207

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aacattaatg aaagcaaaac attataaaag taattttaat tcaccacata cttatcaatt 540
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<211> 655

<212> DNA

<213> Homo sapiens

<400> 208

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 <212> DNA
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<220>
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 <223> n = A,T,C or G

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 agaagaaact tgcagaggcc aagtataagg agcgaggagc ggtcttggtc gaggaccagc 180
 tagcccagat gtcaaagcag ttggacatgt tcaagaccaa cctggaggaa tttgccagca 240
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<210> 211
 <211> 451
 <212> DNA
 <213> Homo sapiens

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 <211> 471
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> 54
 <223> n = A,T,C or G

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 aacctgtctg acccggtcac gttcttggat cctcagaact ctttgctctt gtcgggggtg 360
 ggggtgggaac tcacgtgggg agcgggtggct gagaaaatgt aaggattctg gaatacatat 420
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<210> 213
 <211> 511
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 27, 63, 337, 442
 <223> n = A,T,C or G

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 actttatatt tttccttttg ataaagggat gctgcatagt agagttgggt taattaaact 180
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 <211> 521
 <212> DNA
 <213> Homo sapiens

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 aaatatcaaa aaagggaat gaagtataaa tcaatttttg tataatctgt ttgaaacatg 360

agttttatatt gcttaatat agggctttgc cccttttctg taagtctctt gggatcctgt 420
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 <211> 381
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 <223> n = A,T,C or G

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 ccatgagcag cgaggccgag acccagcagc cgcccgcgc cccccccgc gcccccgccc 180
 tcagcgccgc cgacaccaag cccggcacta cgggcagcgg cgcagggagc ggtggcccgg 240
 gcggcctcac atcggcggcg cctgccggcg gggacaagaa ggtcatcgca acgaagggtt 300
 tgggaacagt aaaatgggtc aatgtaagga acggatatgg tttcatcaac aggaatgaca 360
 ccaangaaga tgtatttgta c 381

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 <211> 425
 <212> DNA
 <213> Homo sapiens

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 gatggtgttg aaatgtccac cttcttaaat ttttaagatg aacttagttc taaagaagat 120
 aacaggccaa tcctgaaggc actccctgtt tgctgcagaa tgcagatat tttggatgtt 180
 gcataagagt cctatttgcc ccagtttaatt caacttttgt ctgcctgttt tgtggactgg 240
 ctggctctgt tagaactctg tccaaaaagt gcatggaata taacttgtaa agcttcccac 300
 aattgacaat atatatgcat gtgttttaaac caaatccaga aagcttaaac aatagagctg 360
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 tttag 425

<210> 217
 <211> 181
 <212> DNA
 <213> Homo sapiens

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 a 181

<210> 218
 <211> 405
 <212> DNA
 <213> Homo sapiens

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<210> 222

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<211> 301
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<213> Homo sapiens
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Val	Leu	Thr	Ser	Asp	Ser	Pro	Ala	Leu	Val	Gly	Ser	Asn	Ile	Thr	Phe
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Ala	Val	Asn	Leu	Ile	Phe	Pro	Arg	Cys	Gln	Lys	Glu	Asp	Ala	Asn	Gly
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Asn	Ile	Val	Tyr	Glu	Lys	Asn	Cys	Arg	Asn	Glu	Ala	Gly	Leu	Ser	Ala
		115					120					125			
Asp	Pro	Tyr	Val	Tyr	Asn	Trp	Thr	Ala	Trp	Ser	Glu	Asp	Ser	Asp	Gly
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145					150					155					160
Pro	Phe	Pro	His	His	Pro	Gly	Trp	Arg	Arg	Trp	Asn	Phe	Ile	Tyr	Val
				165					170					175	
Phe	His	Thr	Leu	Gly	Gln	Tyr	Phe	Gln	Lys	Leu	Gly	Arg	Cys	Ser	Val
			180					185					190		
Arg	Val	Ser	Val	Asn	Thr	Ala	Asn	Val	Thr	Leu	Gly	Pro	Gln	Leu	Met
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Glu	Val	Thr	Val	Tyr	Arg	Arg	His	Gly	Arg	Ala	Tyr	Val	Pro	Ile	Ala
	210					215					220				
Gln	Val	Lys	Asp	Val	Tyr	Val	Val	Thr	Asp	Gln	Ile	Pro	Val	Phe	Val
225					230					235					240
Thr	Met	Phe	Gln	Lys	Asn	Asp	Arg	Asn	Ser	Ser	Asp	Glu	Thr	Phe	Leu
				245					250					255	
Lys	Asp	Leu	Pro	Ile	Met	Phe	Asp	Val	Leu	Ile	His	Asp	Pro	Ser	His
			260				265						270		
Phe	Leu	Asn	Tyr	Ser	Thr	Ile	Asn	Tyr	Lys	Trp	Ser	Phe	Gly	Asp	Asn
		275					280					285			
Thr	Gly	Leu	Phe	Val	Ser	Thr	Asn	His	Thr	Val	Asn	His	Thr	Tyr	Val
	290					295					300				
Leu	Asn	Gly	Thr	Phe	Ser	Leu	Asn	Leu	Thr	Val	Lys	Ala	Ala	Ala	Pro
305					310					315					320
Gly	Pro	Cys	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Arg	Pro	Ser	Lys	Pro	Thr
				325					330					335	
Pro	Ser	Leu	Gly	Pro	Ala	Gly	Asp	Asn	Pro	Leu	Glu	Leu	Ser	Arg	Ile
			340				345						350		
Pro	Asp	Glu	Asn	Cys	Gln	Ile	Asn	Arg	Tyr	Gly	His	Phe	Gln	Ala	Thr
		355					360					365			
Ile	Thr	Ile	Val	Glu	Gly	Ile	Leu	Glu	Val	Asn	Ile	Ile	Gln	Met	Thr
	370					375					380				
Asp	Val	Leu	Met	Pro	Val	Pro	Trp	Pro	Glu	Ser	Ser	Leu	Ile	Asp	Phe
385					390					395					400
Val	Val	Thr	Cys	Gln	Gly	Ser	Ile	Pro	Thr	Glu	Val	Cys	Thr	Ile	Ile
				405					410					415	
Ser	Asp	Pro	Thr	Cys	Glu	Ile	Thr	Gln	Asn	Thr	Val	Cys	Ser	Pro	Val
			420				425						430		
Asp	Val	Asp	Glu	Met	Cys	Leu	Leu	Thr	Val	Arg	Arg	Thr	Phe	Asn	Gly
		435					440					445			
Ser	Gly	Thr	Tyr	Cys	Val	Asn	Leu	Thr	Leu	Gly	Asp	Asp	Thr	Ser	Leu
	450					455					460				
Ala	Leu	Thr	Ser	Thr	Leu	Ile	Ser	Val	Pro	Asp	Arg	Asp	Pro	Ala	Ser
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Ile	Phe	Val	Thr	Val	Ile	Ser	Leu	Leu	Val	Tyr	Lys	Lys	His	Lys	Glu
			500					505					510		
Tyr	Asn	Pro	Ile	Glu	Asn	Ser	Pro	Gly	Asn	Val	Val	Arg	Ser	Lys	Gly
		515					520					525			
Leu	Ser	Val	Phe	Leu	Asn	Arg	Ala	Lys	Ala	Val	Phe	Phe	Pro	Gly	Asn
	530					535					540				
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<400> 232
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 Asn His Ser Pro Ser
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<210> 235
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<210> 243
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<210> 244
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<210> 246
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<210> 247
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 <212> PRT
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```

```

<210> 255
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 9, 67, 247, 275, 277, 397
<223> n = A,T,C or G

```

```

<400> 255
gtggccagng actagaaggc gaggcgccgc gggaccatgg cggcggcggc ggacgagcgg 60
agtccanagg acggagaaga cgaggaagag gaggagcagt tggttctggt ggaattatca 120
ggaattattg attcagactt cctctcaaaa tgtgaaaata aatgcaagg tttgggcatt 180
gacactgaga ggcccattct gcaagtggac agctgtgtct ttgctgggga gtatgaagac 240
actctangga cctgtgttat atttgaagaa aatgntnaac atgctgatac agaaggcaat 300
aataaaacag tgctaaaata taaatgccat acaatgaaga agctcagcat gacaagaact 360
ctcctgacag agaagaagga aggagaagaa aacatangtg g 401

```

```

<210> 256
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 7, 37, 51, 79, 96, 98, 103, 104, 107, 116, 167, 181, 183,
194, 206, 276, 303, 307, 308, 310, 323, 332, 341, 353, 374,
376
<223> n = A,T,C or G

```

```

<400> 256
tggatggncct gggatgggga accgcggtgg cttccgngga ggtttcggca ntggcatccg 60
gggccgggggt cgcgcccgng gacggggccg gggccnangc cgnnganctc gcggangcaa 120
ggccgaggat aaggagtga tgcccgtcac caacttgggc cgcttgncca aggacatgaa 180
nancagccc ctgnaggaga tctatntctt cttccctgcc cattaagga atcaagagat 240
catttgattt cttcctgggg gcctctctca aggatnaggt ttttgaagat tatgccagt 300
canaaannan acccgttgc ccngtccatc tncaccaac ncttccaagg gcnatttttg 360
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```

```

<210> 257
<211> 401

```

```
<220>  
<221> misc_feature  
<222> 7, 9, 19, 41, 63, 73, 106, 111, 113, 116, 119, 156, 158,  
162, 187, 247, 288, 289, 290, 292, 298, 299, 300, 340
```


<223> n = A,T,C or G

<400> 260

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aggaganang gaggggggana tgaataggga tggagaggga natagtggat gagcagggca 60
canggagagg aancagaaag gagaggcaag acaggggagac acacancaca nangangana 120
caggtggggg ctgggggtggg gcatggagag ccttttnangt cncccaggcc accctgctct 180
cgctggngctg ttgaaaccca ctccatggct tcctgccact gcagttgggc ccagggctgg 240
cttattnctg gaatgcaagt ggctgtggct tggagcctcc cctctggnnn anggaaannn 300
attgctccct tatctgcttg gaatatctga gtttttccan cccggaaata aaacacacac 360
aca 363
```

<210> 261

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 114, 152

<223> n = A,T,C or G

<400> 261

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cggctctccg ccgctctccc ggggttttcgg ggcacttggg tcccacagtc tggctcctgct 60
tcaccttccc ctgacctgag tagtcgccat ggcacagggt ctcagaggca ctgngactga 120
cttccctgga tttgatgagc gggctgatgc anaaactctt cggaaggcta tgaaaggctt 180
gggcacagat gaggagagca tcctgactct gttgacatcc cgaagtaatg ctcagcgcca 240
ggaaatctct gcagctttta agactctgtt tggcagggat cttctggatg acctgaaatc 300
agaactaact ggaaaatttg aaaaattaat tgtggctctg atgaaaccct ctgggcttta 360
tgatgcttat gaactgaaac atgccttgaa gggagctgga a 401
```

<210> 262

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 7, 26, 258, 305, 358, 373, 374, 378

<223> n = A,T,C or G

<400> 262

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tttttaaata ctgtaaagtg acatatagtt ataagatata tttctgtaca gtagagaaag 120
agttttataac atgaagaata ttgtaccatt atacattttc attctcgatc tcataagaaa 180
ttcaaaaagaa taatgataga ggtgaaaata tgtttacttt ctctaaatca agcctagttg 240
tcaactcaaa aattatgntg catagtttta ttttgaattt aggttttggg actacttttt 300
tccancttca atgagaaaat aaaatctaca actcaggagt tactacagaa gttctaanta 360
tttttttgct aannagcnaa aaatataaac atatgaaaat g 401
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<210> 263

<211> 401

<212> DNA

<213> Homo sapiens

1000700-1300


```
<210> 264
<211> 401
<212> DNA
<213> Homo sapiens
```

```
<210> 265
<211> 271
<212> DNA
<213> Homo sapiens
```

```
<400> 265
gccacttcct  gtggacatgg  gcagagcgct  gctgccagtt  cctggtagcc  ttgaccacna  60
cgctgggggg  tctttgtgat  ggtcatgggt  ctcatTTtgca  cttgggggtg  tgggattcaa  120
gttagaagtt  tctagatctg  gccgggcgca  gtggctcaca  cctgtaatcc  cagcacttta  180
ggaggctgag  gcaggcggat  catgaggtca  ggagatcgag  accgtcctgg  ctaacacagt  240
gaaaccccgT  ctctactaaa  aatacaaaaa  a
                                                    271
```

```
<210> 266
<211> 401
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 45  
<223> n = A,T,C or G
```

```
<400> 269
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tgctagttca tttgaatat tctcccaact tatccaagga tctccagctc taacaaaatg 120
gtttattttt atttaaatt caatagttgt tttttaaaat ccaaatacaga ggtgcaggcc 180
accagttaaa tgccgtctat cagggttttg gccttaagag actacagagt caaagctcat 240
ttttaaaagga gtaggacaaa gttgtcacag gtttttgttg ttgtttttat tgccccc aaa 300
attacatgtt aatttccatt tatatcaggg attctattta cttgaagact gtgaagttgc 360
cattttgtct cattgttttc tttgacataa ctaggatcca t 401
```

```
<400> 272
nggctgntaa cntcggaggt nacttcctgg actatcctgg agacccccctc cgcttccacg 60
nncatnatat cnetcatngc tgggcccntn angacacnat cccactccaa cacctgngng 120
```

```
<210> 273
<211> 401
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 399
<223> n = A,T,C or G
```

<400>	273						
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cgacgagtcg	ggccccctcca	tcgtccaccg	caaatgcttc	taaacggact	cagcagatgc	180	
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ctcatgctag	cctcacgaaa	ctggaataag	ccttcgaaaa	gaaattgtcc	ttgaagcttg	300	
tatctgatat	cagcactgga	ttgtagaact	tgttgctgat	tttgaccttg	tattgaagtt	360	
aactgttccc	cttggtatta	acgtgtcagg	gctgaagtnt	c		401	

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<210> 274
<211> 401
<212> DNA
<213> Homo sapiens
```

<400> 274						
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cctaccgcag	gatgttcggc	ggcccgggca	ccgcgagccg	gccgagctcc	agccggagct	180
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gcagcctcta	cgccctcgtc	ccggggcggcg	tgtatgccac	gcgtcctct	gccgtgcgcc	300
tgcggagcag	cgtgcccggg	gtgcggctcc	tgcaggactc	ggtggacttc	tcgctggccg	360
acgccatcaa	caccgaattc	aagaacaccc	gcaccaacga	g		401

```
<210> 275
<211> 401
<212> DNA
<213> Homo sapiens
```

<400> 275						
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gaagggactt	acctcccaa	ggttctgcag	gggaatctgg	agctacacac	aggagggatc	180
agctcctggg	tgtgtcagag	gccagcctgg	ggagctctgg	ccactgcttc	ccatgagctg	240
agggagaggg	agaggggacc	cgaggctgag	gcataagtgg	caggatttcg	ggaagctggg	300
gacacggcag	tgatgctgcg	gtctctcttc	ccctttccct	ccaggcccag	tgccagcacc	360
ctcctqaacc	actcttttct	caagcaqatc	aagcqaac	ctg		401

<210> 276

```
<400> 278
aatgagtggtg agaccacaaa tgaatgccgg gaggatgaaa tgtgttggaa ttatcatggc 60
ggcttccggtt gttatccacg aaatccttgt caagatccct acattctaac accagagaac 120
cgatgtgttt gccagtcctc aaatgccatg tgccgagaac tgccccagtc aatagtctac 180
aaatacatga gcatccgatc tgataggtct gtgccatcag acatcttcca gatacaggcc 240
acaactatth atgccaacac catcaatact tttcggatta aatctggaaa tgaaaatgga 300
gagtcctacct acgacaacaa anccctgtaa gtgcaatgct tgtgctcgtg aagncattat 360
```

caggaccaag agaacatatc gtggacctgg agatgctgac a

401

<210> 279

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 30, 35, 81, 88, 180, 212, 378, 384, 391

<223> n = A,T,C or G

<400> 279

```
aaattattgc ctctgataca tacctaagtn aacanaacat taatacctaa gtaaacataa 60
cattacttgg agggttgcag nttctaantg aaactgtatt tgaaactttt aagtatactt 120
taggaaacaa gcatgaacgg cagtctagaa taccagaaac atctacttgg gtagcttggn 180
gccattatcc tgtggaatct gatatgtctg gnagcatgtc attgatggga catgaagaca 240
tcttttgaaa tgatgagatt atttcctgtg ttaaaaaaaaa aaaaaatctt aaattcctac 300
aatgtgaaac tgaaactaat aattttgatc ctgatgtatg ggacagcgta tctgtaccag 360
gctctaaata acaaaagnta gggngacaag nacatgttcc t 401
```

<210> 280

<211> 326

<212> DNA

<213> Homo sapiens

<400> 280

```
gaagtggaaat tgtataattc aattcgataa ttgatctcat gggctttccc tggaggaaag 60
gtttttttttg ttgtttttttt tttaagaact tgaaacttgt aaactgagat gtctgtagct 120
tttttgccca tctgtagtgt atgtgaagat ttcaaaacct gagagcactt tttctttggt 180
tagaattatg agaaaggcac tagatgactt taggatttgc atttttccct ttattgcctc 240
atttcttggt acgccttggt ggggagggaa atctgtttat tttttcctac aaataaaaag 300
ctaagattct atatcgcaaa aaaaaa 326
```

<210> 281

<211> 374

<212> DNA

<213> Homo sapiens

<400> 281

```
caacgcggttt gcaaatatct ccctggtagc ctacttcctt acccccgaat attggtaaga 60
tcgagcaatg gcttcaggac atgggttctc ttctcctgtg atcattcaag tgctcactgc 120
atgaagactg gcttgtctca gtgtttcaac ctaccagggt ctgtctcttg gtccacacct 180
cgctccctgt tagtgccgta tgacagcccc catcaaata ccttggccaa gtcacgggtt 240
ctctgtgggc aaggttggtt ggctgattgg tggaagtag ggtggaccaa aggaggccac 300
gtgagcagtc agcaccagtt ctgcaccagc agcgctccg tcctagtggg tggtcctggt 360
tctcctggcc ctgg 374
```

<210> 282

<211> 404

<212> DNA

<213> Homo sapiens

<220>

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```
<210> 285
<211> 361
<212> DNA
<213> Homo sapiens
```

<220>
 <221> misc_feature
 <222> 34, 188
 <223> n = A,T,C or G

<400> 285
 ctgggtggtgta actcttttatt tcattgtccg gaanaaagat gggagtggga acaggggtgga 60
 cactgtgcag gcttcagctt ccactccggg caggattcag gctatctggg accgcaggga 120
 ctgccagggtg cacagccctg gctcccaggg caggcaggca aggtgacggg actggaagcc 180
 cttttcanag ccttggagga gctgggtccgt ccacaagcaa tgagtgccac tctgcagttt 240
 gcaggggatg gataaacagg gaaacactgt gcattcctca cagccaacag tgtaggtcctt 300
 ggtgaagccc cggcgctgag ctaagctcag gctgttccag ggagccacga aactgcaggt 360
 a 361

<210> 286
 <211> 336
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 40, 68, 75, 127, 262
 <223> n = A,T,C or G

<400> 286
 tttgagtggc agcgccttta tttgtggggg ccttcaaggc agggtcgtgg ggggcagcgg 60
 ggaggaanag ccganaaact gtgtgaccgg ggcctcaggt ggtgggcatt gggggctcct 120
 cttgcanatg cccattggca tcaccgggtg agccattggg ggcagcgggt accgggtcctt 180
 tcttggtcaa catagggtag gtggcagcca cgggtccaac tcgcttgagg ctgggccctg 240
 ggcgctccat tttgtgttcc angagcatgt ggttctgtgg cgggagcccc acgcaggccc 300
 tgaggatggt ctcgatgcag ctgcgctggc ggaaaa 336

<210> 287
 <211> 301
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 15, 33, 44, 53, 76, 83, 107, 117, 154, 166, 192, 194, 207,
 215, 241, 246
 <223> n = A,T,C or G

<400> 287
 tgggtaccaa atttntttat ttgaagggaat ggnacaaatc aaanaactta agnggatggt 60
 ttggtacaac ttatanaaaa ggnaaaggaa accccaacat gcatgcnctg ccttgngac 120
 caggggaagtc accccacggc tatggggaaa ttancccgag gcttancttt cattatcact 180
 gtctcccagg gngngcttgt caaaaanata ttccnccaag ccaaattcgg gcgctcccat 240
 nttgcncagg ttggtcacgt ggtcacccaa ttctttgatg gctttcacct gctcattcag 300
 g 301

<210> 288
 <211> 358
 <212> DNA

100070013001

tactttccta	aacttttatta	aagaaaaaag	caataagcaa	tggnggtaaa	tctctanaac	60
atacccaatt	ttctgggctt	cctcccccg	gaatgtgaca	ttttgatttc	caaacatgcc	120
anaagtgtat	ggttcccaac	tgtactaaag	taggtganaa	gctgaagtcc	tcaagtgttc	180
atcttccaac	ttttcccagt	ctgtgggtctg	tctttggatc	agcaataatt	gcctgaacag	240
ctactatggc	ttcgttgatt	tttgtctgta	gctctctgag	ctcctctatg	tgcagcaatc	300
gcanaatttg	agcagcttca	ttaanaactg	catctcctgt	gtcaaaacca	anaatatgtt	360
tgtctaaagc	aacaggtaag	ccctcttttg	tttgatttgc	cttancaact	gcctcctgtg	420
tcaggcgctc	ctgaaccaa	atccgaattg	ccttaagcat	taccaggtaa	tcatcatgac	480

g

481

<210> 291
 <211> 381
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 79, 166, 187, 208, 219, 315
 <223> n = A,T,C or G

<400> 291
 tcatagtaat gtaaaacccat ttgtttaatt cttaatcaaa tcactttcac aacagtgaag 60
 attagtact ggttaaggng tgccactgta catatcatca ttttctgact ggggtcagga 120
 cctggtccta gtccacaagg gtggcaggag gaggggtggag gctaanaaca cagaaaacac 180
 acaaaaanaaa ggaaagctgc cttggcanaa ggatgaggng gtgagcttgc cgaaggatgg 240
 tgggaagggg gctccctgtt ggggccgagc caggagtccc aagtcagctc tcctgcctta 300
 cttagctcct ggcanagggt gagtggggac ctacgagggt caaatcaaa tggcatttgg 360
 ccagcctggc ttactaaca g 381

<210> 292
 <211> 371
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 32, 55, 72, 151, 189, 292
 <223> n = A,T,C or G

<400> 292
 gaaaaaataa tccgtttaat tgaaaaacct gnaggatact attccactcc cccanattgag 60
 gaggtctgagg anaccaaacc cctacatcac ctgtagcca cttctgatac tcttcacgag 120
 gcagcaggca aagacaattc ccaaaacctc nacaaaagca attccaaggg ctgctgcagc 180
 taccaccanc acatttttcc tcagccagcc cccaatcttc tccacacagc cctccttatg 240
 gatcgcttcc tcgttgaaat taatcccaca gccacagta acattaatgc ancaggagtc 300
 ggggactcgg ttcttcgaca tggaagggat tttctccaa tctgtgtagt tagcagcccc 360
 acagcactta a 371

<210> 293
 <211> 361
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 75, 196, 222
 <223> n = A,T,C or G

<400> 293
 gatttaaaag aaaacacttt attgttcagc aattaaaagt tagccaaata tgtatttttc 60
 tccataattt attngatgt tatcaacatc aagtaaatg ctcatattca tcatttgctt 120
 ctgttcattg tttcttgaac acgtcttcaa ttttcttcc aaaatgctgc atgccacact 180

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```
<400> 296
ttcttgata ttggttggtt ttgtgaaaaa gtttttggtt ttcttctcag tcaactgaat 60
```

```
<210> 297
<211> 391
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 12, 130
<223> n = A,T,C or G
```

<400>	297						
g tt gt g g ct g	ana at g ct g g	ag at g ct ca g	tt ct ct cc ct	ca ca ag g ta g	gc ca ca aa tt	60	
ct t g g t g g t g	cc ct ca ca t c	t g g g g t ct t c	ag gc ca cc ag c	ca t g ct g cc	ga gg ag t g ct	120	
gt c ag ga ca n	acc at g t cc g	t g ct ag g cc c	ag gc ca ag cc	ca acc ac t cc	tc at cc aa g t	180	
ct ct cc c ag g	tt t ct g g t cc	cg at g g g ca a	gg at ga c c c c	t cc ag t g g ct	gg ta c c c c ac	240	
ca t c c c ac ta	ccc ct ca ca t	g ct ct ca ct c	t cc at ca g g t	ccc ca at c ct	gg ct t c c c t c	300	
tt ca c ga ac t	ct ca a ag aa a	ag ga ag g ta	aa ac ct aa at	aa acc ga ga ca	ga ag ca g ct c	360	
t g g a a a a g ta	ca a a a a g a ca	g cc ag ag g t g	t			391	

```
<210> 298
<211> 321
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 14, 30, 76, 116, 201, 288, 301  
<223> n = A,T,C or G
```

```
<400> 298
caagccaaac  tgtntccagc  tttatttaaan  atacttttcca  taaacaatca  tgggtattttca  60
ggcaggacat  gggcanacaa  tcgttaacag  tataacaacaa  ctttcaaact  cccttntttca  120
atggactacc  aaaaatcaaa  aagccactat  aaaacccaat  gaagtcttca  tctgatgctc  180
tgaacaggga  aagtttaaag  ngagggttga  catttcacat  ttagcatggt  gtttaacaac  240
ttttcacaag  ccgaccctga  ctttcaggaa  gtgaaatgaa  aatggcanaa  tttatctgaa  300
natccacaat  ctaaaaatqg  a  321
```

```
<210> 299
<211> 401
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 104, 268, 347
<223> n = A,T,C or G
```

<400> 299
tatcataaag agtgttgaag tttattttatt atagcaccat tgagacattt tgaaattgga 60


```
<210> 300
<211> 188
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 48
<223> n = A,T,C or G
```

```
<400> 300
tgaatgcttt gtcataattaa gaaagttaaa gtgcaataat gtttgaanac aataagtgg 60
gggtgatctt gtttctaata agataaactt ttttgtcttt gctttatctt attagggagt 120
tgtatgtcag tgtataaaac atactgtgtg gtataacagg cttaataaat tctttaaaag 180
gaaaaaaaaa 188
```

```
<210> 301
<211> 291
<212> DNA
<213> Homo sapiens
```

```
<400> 301
aagatttttgt tttatttttat tatggctaga aagacactgt tatagccaaa atcggcaatg 60
acactaaaga aatcctctgt gcttttcaat atgcaaatat atttcttcca agagttgccc 120
tggtgtgact tcaagagttc atgttaactt cttttctgga aacttccttt tcttagttgt 180
tgtattcttg aagagcctgg gccatgaaga gcttgccata gttttgggca gtgaactcct 240
tqatgttctg qcagtaagtg tttatctggc ctgcaatgag cagcgagtcc a 291
```

```
<210> 302
<211> 341
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 25  
<223> n = A,T,C or G
```

```
<400> 302
tgattttttca taatttttatt aaatnatcac tgggaaaact aatgggttcgc gtatcacaca 60
attacactac aatctgatag gagtggtaaa accagccaat ggaatccagg taaagtacaa 120
aaacgccacc ttttattgtc ctgtcttatt tctcgggaag gagggttcta ctttacacat 180
ttcatgagcc agcagtggac ttgagttaca atgtgtaggt tccttgtagg tatagctgca 240
gaagaagcca tcaaattctt gaggacttga catctctcgg aaagaagcaa actagtggat 300
ccccqggct qcaggaattc gatatcaagc ttatcgatac c 341
```

<210> 303

<211> 361
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 15, 27, 92, 124, 127, 183, 198, 244, 320
 <223> n = A,T,C or G

<400> 303
 tgcagacagt aaatnaattt tatttgngtt cacagaacat actaggcgat ctgcacagtc 60
 gctccgtgac agcccaccaa cccccaaccc tntacctcgc agccacccta aaggcgactt 120
 caanaanatg gaaggatctc acggatctca ttcctaattg tccgccgaag tctcacacag 180
 tanacagacg gagttganat gctggaggat gcagtcacct cctaaactta cgaccaccca 240
 ccanacttca tcccagccgg gacgtcctcc cccacccgag tcctcccat ttcttctcct 300
 actttgccgc agttccaggn gtcctgcttc caccagtccc acaaagctca ataaatacca 360
 a 361

<210> 304
 <211> 301
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 23, 104, 192
 <223> n = A,T,C or G

<400> 304
 ctctttacaa cagcctttat ttncggccct tgatcctgct cggatgctgg tggaggccct 60
 tagctccgcc cgccaggctc tgtgccgcct ccccgaggc gcanattcat gaacacggtg 120
 ctgaggggct tgaggccgta ctccccagc gggagctggt cctccagggg ctccccctcg 180
 aaggtcagcc anaacaggct gtcctgcaca ccctccagcc cgctcacttg ctgcttcagg 240
 tggggccacgg tctgcgtcag ccgcacctcg taggtgctgc tgcggccctt gttattcctc 300
 a 301

<210> 305
 <211> 331
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 3, 36, 60, 193, 223
 <223> n = A,T,C or G

<400> 305
 ganaggctag taacatcagt tttattgggt tggggnggca accatagcct ggctgggggn 60
 ggggctggcc ctacacaggtt gttgagttcc agcagggtct ggtccaaggt ctggtgaatc 120
 tcgacgttct cctccttggc actggccaag gtctcttcta ggtcatcgat ggttttctcc 180
 aactttgcca canacctctc ggcaaactct gctcgggtct cancctcctt cagcttctcc 240
 tccaacagtt tgatctcctc ttcataattta tcttctttgg gggaatactc ctctcttgag 300
 gccatcaggg acttgagggc ctggtccatg g 331

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```
<400> 309
accaaattggc ggatgacgcc ggtgcagcgg gggggcccgg gggccctggt ggccctggga 60
tggggaaccg cggtggcttc cgcgagaggt tcggcagtgg catccggggc cggggtcgcg 120
```

```
<210> 310
<211> 381
<212> DNA
<213> Homo sapiens
```

```
<210> 311
<211> 538
<212> DNA
<213> Homo sapiens
```

```
<210> 312
<211> 176
<212> DNA
<213> Homo sapiens
```

```
<210> 313
<211> 396
<212> DNA
<213> Homo sapiens
```

```
<400> 313
ccagcaccccc caggccctgg gggacctggg ttctcagact gccaaagaag ccttgccatc 60
tggcgctccc atggctcttg caacatctcc ccttcgtttt tgaggggggtc atgccggggg 120
agccaccagc ccctcactgg gttcggagga gagtcaggaa gggccaagca cgacaaagca 180
```

gaaacatcgg atttggggaa cgcgtgtcaa tcccttgtgc cgcagggctg ggcgggagag 240
 actgttctgt tccttgtgta actgtgttgc tgaaagacta cctcgttctt gtcttgatgt 300
 gtcaccgggg caactgcctg ggggcgggga tgggggcagg gtggaagcgg ctccccattt 360
 tataccaaag gtgctacatc tatgtgatgg gtgggg 396

<210> 314
 <211> 311
 <212> DNA
 <213> Homo sapiens

<400> 314
 cctcaacatc ctcagagagg actggaagcc agtccttacg ataaactcca taatttatgg 60
 cctgcagtat ctcttcttgg agcccaaccc cgaggacca ctgaacaagg aggccgcaga 120
 ggtcctgcag aacaaccggc ggctgtttga gcagaacgtg cagcgtcca tgcggggtgg 180
 ctacatcggc tccacctact ttgagcgtg cctgaaatag ggttggcgca taccacccc 240
 cgccacggcc acaagccctg gcatcccctg caaatattta ttgggggcca tgggtagggg 300
 tttggggggc g 311

<210> 315
 <211> 336
 <212> DNA
 <213> Homo sapiens

<400> 315
 tttagaacat ggttatcatc caagactact ctaccctgca acattgaact cccaagagca 60
 aatccacatt cctcttgagt tctgcagctt ctgtgtaaat agggcagctg tcgtctatgc 120
 cgtagaatca catgatctga ggaccattca tggagctgc taaatagcct agtctgggga 180
 gtcttccata aagttttgca tggagcaaac aaacaggatt aaactagggt tggttccttc 240
 agccctctaa aagcataggg cttagcctgc aggccttcctt gggctttctc tgtgtgtgta 300
 gttttgtaaa cactatagca tctgttaaga tccagt 336

<210> 316
 <211> 436
 <212> DNA
 <213> Homo sapiens

<400> 316
 aacatgggtc gcgtgcctta agagagacgc ttcctgcaga acaggacctg actacaaaga 60
 atgtttccat tggaattggt ggtaaagact tggagtgttac aatctatgat gatgatgatg 120
 tgtctccatt cctggaaggt cttgaagaaa gaccacagag aaaggcacag cctgctcaac 180
 ctgctgatga acctgcagaa aaggctgatg aaccaatgga acattaagt atagccagt 240
 ctatatatgt attatcaa atgtagaat acaggcacca cactactgat acaataatct 300
 atactttgaa ccaaagttg cagagtgggt gaatgctatg ttttaggaat cagtccagat 360
 gtgagttttt tccaagcaac ctactgaaa cctatataat ggaatacatt tttctttgaa 420
 agggctctgta taatca 436

<210> 317
 <211> 196
 <212> DNA
 <213> Homo sapiens

<400> 317
 tattccttgt gaagatgata tactatTTTT gttaagcgtg tctgtattta tgtgtgagga 60
 gctgctggct tgcagtgcgc gtgcacgtgg agagctgggt cccggagatt ggacggcctg 120

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```
<210> 318
<211> 381
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 8, 9, 102, 122, 167, 182, 193, 235, 253, 265, 266, 290, 321,
378
<223> n = A,T,C or G
```

<400> 318						
gacgcttnng	ccgtaacgat	gatcggagac	atcctgctgt	tcgggacgtt	gctgatgaat	60
gccggggcgg	tgctgaactt	taagctgaaa	aagaaggaca	cncaggggctt	tggggaggag	120
tncaggggagc	ccaacacagg	tgacaacatc	cgggaattct	tgctgancct	cagatacttt	180
cnaatcttca	tcnccctgtg	gaacatcttc	atgatgttct	gcatgattgt	gctgntcggc	240
tcttgaatcc	cancgatgaa	accannaact	cactttcccc	ggatgccgan	tctccattcc	300
tccattcctg	atgacttcaa	naatgttttt	gaccaaaaaa	ccgacaacct	ttccagaaaag	360
tccaaqctcg	tqgtqqnqg	a				381

```
<210> 319
<211> 506
<212> DNA
<213> Homo sapiens
```

<400>	319					
ctaagcttta	cgaatggggt	gacaacttat	gataaaaact	agagctagt	aattagccta	60
tttgtaaata	cctttgttat	aattgatagg	atacatcttg	gacatggaat	tgттаagcca	120
cctctgagca	gtgtatgtca	ggacttggtc	attaggttgg	cagcagaggg	gcagaaggaa	180
ttatacaggt	agagatgtat	gcagatgtgt	ccatatatgt	ccatatttac	attttgatag	240
ccattgatgt	atgcatctct	tggctgtact	ataagaacac	attaattcaa	tggaaataca	300
ctttgcta	attttaatgg	tatagatctg	ctaatagaatt	ctcttaaaaa	catactgtat	360
tctgttgctg	tgtgtttcat	tttaaattga	gcattaaggg	aatgcagcat	ttaaatcaga	420
actctgccaa	tgctttttatc	tagaggcgtg	ttgccatttt	tgtcttatat	gaaatttctg	480
tcccaagaaa	ggcaggatta	catctt				506

```
<210> 320
<211> 351
<212> DNA
<213> Homo sapiens
```

```
<400> 320
ctgacctgca ggacgaaacc atgaagagcc tgatccttct tgccatcctg gccgccttag 60
cggtagtaac tttgtgttat gaatcacatg aaagcatgga atcttatgaa cttaatccct 120
tcattaacag gagaaatgca aataccttca tatcccctca gcagagatgg agagctaaag 180
tccaagagag gatccgagaa cgctctaagc ctgtccacga gctcaatagg gaagcctgtg 240
atgactacag actttgcgaa cgctacgcca tggtttatgg atacaatgct gcctataatc 300
gctacttcag gaagcgccga gggaccaa atgagactgagg gaagaaaaaa a 351
```

$$\begin{array}{ll} \langle 210 \rangle & 321 \\ \langle 211 \rangle & 421 \end{array}$$


```
<400> 324
aggagatcga ctttcggtgc ccgcaagacc agggctggaa cgccgagatc acgctgcaga 60
tggtgcagta caagaatcgt caggccatcc tggcgggtcaa atccacgcgg cagaagcagc 120
agcacctggt ccagcagcag cccccctcgc agccgcagcc gcagccgcag ctccagcccc 180
aacccccagcc tcagcctcag ccqcaacccc agccccaatc acaaccccag cctcagcccc 240
```

```

aaccceaagcc tcagccccag cagctccacc cgtatccgca tccacatcca catccacact 300
ctcatcctca ctgcgaccca caccctcacc cgcacccgca tccgcaccaa ataccgcacc 360
cacacccaca gccgcactcg cagccgcacg ggcacccgct tctccgcagc acctccaact 420
ctgcctgaaa ggggcagctc ccgggcaaga caagggtttg aggacttgag gaagtgggac 480
gagcacattt ctattgtctt cacttggatc aaaagcaaaa c 521

```

<210> 325

<211> 451

<212> DNA

<213> Homo sapiens

<400> 325

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tatttttact tagattactt tgggaatgag agattgttgt cttgaactct ggcactgtac 180
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acccccaccc ccaccaaga catttttaata gtaaataagag agagagagaa gagttaatga 360
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ctttatcact tgaattatta acttaatttg a 451

```

<210> 326

<211> 421

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 296

<223> n = A,T,C or G

<400> 326

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ggataccgga aaaacacccg tggagccgga ggtggcaatt caccgaattc gaatcaccct 180
aacaagccgc aacgtaaaat ccttggaata ggtgtgtgct gacttgataa gaggcgcaaa 240
agaaaagaat ctcaaagtga aaggaccagt tcgaatgcct accaagactt tgagantcac 300
tacaagaaaa actccttggt gtgaagggtc taagacgtgg gatcggttcc agatgagaat 360
tcacaagcga ctcatcgact tgcacagctc ttctgagatt gttaagcaga ttacttccat 420
c 421

```

<210> 327

<211> 456

<212> DNA

<213> Homo sapiens

<400> 327

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atccgggggc aaggccaaaa agaagaagtg gtccaaaggc aaagttcggg acaagctcaa 180
taacttagtc ttgtttgaca aagctaccta tgataaactc tgtaaggaag ttcccaacta 240
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ggcagccctt caggagctcc ttagtaaaag acttatcaaa ctgggtttcaa agcacagagc 360
tcaagtaatt tacaccagaa ataccaaggg tggagatgct ccagctgctg gtgaagatgc 420

```

atgaataggt ccaaccagct gtacatttgg aaaaat

456

<210> 328

<211> 471

<212> DNA

<213> Homo sapiens

<400> 328

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tgattatccg aaatgtttca ttgtgggagc agacaatgtg ggctccaagc agatgcagca 180
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gctggccaat aagggtgccag ctgctgcccg tgctgggtgcc attgccccat gtgaagtcac 420
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<210> 329

<211> 278

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 154, 204

<223> n = A,T,C or G

<400> 329

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aaattgagat gcccccccag gccagcaaat gttccttttt gttcaaagtc tatttttatt 120
ccttgatatt tttctttttt tttttttttt ttgnggatgg ggacttgtga atttttctaa 180
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tccacctct ctccacctgc ctctggcttc tcaggcct 278
```

<210> 330

<211> 338

<212> DNA

<213> Homo sapiens

<400> 330

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cgactctcc cctgaactct acacaacata ttttgtcacc aagaccctac ttctaacctc 180
cctgttctta tgaattcgaa cagcataccc ccgattccgc tacgaccaac tcatacacct 240
cctatgaaaa aacttcctac cactcaccct agcattactt atatgatatg tctccatacc 300
cattacaatc tccagcattc cccctcaaac ctaaaaaa 338
```

<210> 331

<211> 2820

<212> DNA

<213> Homo sapiens

<400> 331

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100070013004

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<210> 332
<211> 2270
<212> DNA
<213> Homo sapiens

<400> 332
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```

<210> 333

<211> 2816

<212> DNA

<213> Homo sapiens

<400> 333

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<210> 334

<211> 2082

<212> DNA

<213> Homo sapiens

<400> 334

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<210> 335
<211> 4849
<212> DNA
<213> Homo sapiens
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<400>	335					
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aatcccctaa	aataacagta	tgtgggatat	tgaatgttaa	agggatattt	tttttctatt	4620
atTTTTataa	ttgtacaaaa	ttaagcaaat	gttaaaagtt	ttatatgctt	tattaatgtt	4680
ttcaaaaggt	attatacatg	tgatacattt	tttaagcttc	agttgcttgt	cttctggtag	4740
tttctgttat	gggcttttgg	ggagccagaa	gccaatctac	aatctctttt	tgtttgccag	4800
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<210> 336

<211> 1386

<212> DNA

<213> Homo sapiens

<400> 336

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aacacagacc	acgcgcagaa	cagcgtcacg	gcgccctcgc	cctacgcaca	gccagctcc	180
accttcgatg	ctctctctcc	atcaccgcc	atccctcca	acaccgacta	cccaggcccg	240
cacagtttcg	acgtgtcctt	ccagcagtcg	agcaccgcca	agtcggccac	ctggacgtat	300
tccactgaac	tgaagaaact	ctactgccaa	attgcaaaga	catgccccat	ccagatcaag	360
gtgatgacct	cacctcctca	gggagctgtt	atccgcgcca	tgctgtcta	caaaaaagct	420
gagcacgtca	cggaggtggg	gaagcgggtg	cccaaccatg	agctgagccg	tgaattcaac	480
gagggacaga	ttgcccctcc	tagtcatttg	attcgagtag	aggggaacag	ccatgccag	540
tatgtagaag	atcccatcac	aggaagacag	agtgtgctgg	taccttatga	gccacccag	600
gttggcactg	aattcacgac	agtcttgtag	aatttcatgt	gtaacagcag	ttgtgttgga	660
gggatgaacc	gccgtccaat	tttaatcatt	gttactctgg	aaaccagaga	tgggcaagtc	720
ctgggcccag	gctgctttga	ggcccggatc	tgtgcttgcc	caggaagaga	caggaaggcg	780
gatgaagata	gcatacagaa	gcagcaagtt	tcggacagta	caaagaacgg	tgatggtacg	840
aagcgcctgt	ttcgtcagaa	cacacatggt	atccagatga	catccatcaa	gaaacgaaga	900
tccccagatg	atgaactgtt	atacttacca	gtgaggggcc	gtgagactta	tgaaatgctg	960
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tacaggcaac	agcaacagca	gcagcaccag	cacttacttc	agaaacagac	ctcaatacag	1080
tctccatctt	catatggtaa	cagctcccca	cctctgaaca	aaatgaacag	catgaacaag	1140
ctgccttctg	tgagccagct	tatcaaccct	cagcagcgca	acgccctcac	tcctacaacc	1200
attcctgatg	gcatgggagc	caacattccc	atgatgggca	cccacatgcc	aatggctgga	1260
gacatgaatg	gactcagccc	cacccaggca	ctccctcccc	cactctccat	gccatccacc	1320
tcccactgca	cacccccacc	tccgtatccc	acagattgca	gcattgtcag	gatctggcaa	1380
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<210> 337

<211> 1551

<212> DNA

<213> Homo sapiens

<400> 337

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ccatcagaag	atgggtgcgac	aaacaagatt	gagattagca	tggactgtat	ccgcatgcag	180
gactcggacc	tgagtgacct	catgtggcca	cagtacacga	acctggggct	cctgaacagc	240
atggaccagc	agattcagaa	cggctcctcg	tccaccagtc	cctataacac	agaccacgcg	300
cagaacagcg	tcacggcgcc	ctcgccctac	gcacagccca	gctccacctt	cgatgctctc	360
tctccatcac	ccgccatccc	ctccaacacc	gactacccag	gcccgcacag	tttcgacgtg	420
tccttccagc	agtcgagcac	cgccaagtcg	gccacctgga	cgtattccac	tgaactgaag	480
aaactctact	gccaaattgc	aaagacatgc	cccatccaga	tcaaggtgat	gacccacact	540
cctcagggag	ctgttatccg	cgccatgcct	gtctacaaaa	aagctgagca	cgtcacggag	600

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gtggtgaagc ggtgccccaa ccatgagctg agccgtgaat tcaacgaggg acagattgcc 660
cctcctagtc atttgattcg agtagagggg aacagccatg cccagtatgt agaagatccc 720
atcacaggaa gacagagtgt gctggtacct tatgagccac cccagggttg cactgaattc 780
acgacagtct tgtacaattt catgtgtaac agcagttgtg ttggagggat gaaccgccgt 840
ccaattttta tcattgttac tctggaaacc agagatgggc aagtcctggg ccgacgctgc 900
tttgaggccc ggatctgtgc ttgcccagga agagacagga aggcggatga agatagcatc 960
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ctgttatact taccagttag gggccgtgag acttatgaaa tgctgttgaa gatcaaagag 1140
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ggagccaaca ttcccatgat gggcaccac atgccaatgg ctggagacat gaatggactc 1440
agccccaccc aggcactccc tccccactc tccatgccat ccacctccca ctgcacaccc 1500
ccacctccgt atcccacaga ttgcagcatt gtcaggatct ggcaagtctg a 1551

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<210> 338
<211> 586
<212> PRT
<213> Homo sapiens

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<400> 338
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Tyr Thr Asn Leu Gly Leu Leu Asn Ser Met Asp Gln Gln Ile Arg Asn
 20          25          30
Gly Ser Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser
 35          40          45
Val Thr Ala Pro Ser Pro Tyr Ala Gln Pro Ser Pro Thr Phe Asp Ala
 50          55          60
Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro
 65          70          75          80
His Ser Ser Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala
 85          90          95
Thr Trp Thr Tyr Ser Thr Glu Leu Lys Lys Leu Tyr Cys Gln Ile Ala
100          105          110
Lys Thr Cys Pro Ile Gln Ile Lys Val Met Thr Pro Pro Pro Gln Gly
115          120          125
Ala Val Ile Arg Ala Met Pro Val Tyr Lys Lys Ala Glu His Val Thr
130          135          140
Glu Val Val Lys Arg Cys Pro Asn His Glu Leu Ser Arg Glu Phe Asn
145          150          155          160
Glu Gly Gln Ile Ala Pro Pro Ser His Leu Ile Arg Val Glu Gly Asn
165          170          175
Ser His Ala Gln Tyr Val Glu Asp Pro Ile Thr Gly Arg Gln Ser Val
180          185          190
Leu Val Pro Tyr Glu Pro Pro Gln Val Gly Thr Glu Phe Thr Thr Val
195          200          205
Leu Tyr Asn Phe Met Cys Asn Ser Ser Cys Val Gly Gly Met Asn Arg
210          215          220
Arg Pro Ile Leu Ile Ile Val Thr Leu Glu Thr Arg Asp Gly Gln Val
225          230          235          240
Leu Gly Arg Arg Cys Phe Glu Ala Arg Ile Cys Ala Cys Pro Gly Arg

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1000700.43004

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                245                250                255
Asp Arg Lys Ala Asp Glu Asp Ser Ile Arg Lys Gln Gln Val Ser Asp
                260                265                270
Ser Thr Lys Asn Gly Asp Gly Thr Lys Arg Pro Phe Arg Gln Asn Thr
                275                280                285
His Gly Ile Gln Met Thr Ser Ile Lys Lys Arg Arg Ser Pro Asp Asp
                290                295                300
Glu Leu Leu Tyr Leu Pro Val Arg Gly Arg Glu Thr Tyr Glu Met Leu
305                310                315                320
Leu Lys Ile Lys Glu Ser Leu Glu Leu Met Gln Tyr Leu Pro Gln His
                325                330                335
Thr Ile Glu Thr Tyr Arg Gln Gln Gln Gln Gln Gln His Gln His Leu
                340                345                350
Leu Gln Lys Gln Thr Ser Ile Gln Ser Pro Ser Ser Tyr Gly Asn Ser
                355                360                365
Ser Pro Pro Leu Asn Lys Met Asn Ser Met Asn Lys Leu Pro Ser Val
370                375                380
Ser Gln Leu Ile Asn Pro Gln Gln Arg Asn Ala Leu Thr Pro Thr Thr
385                390                395                400
Ile Pro Asp Gly Met Gly Ala Asn Ile Pro Met Met Gly Thr His Met
                405                410                415
Pro Met Ala Gly Asp Met Asn Gly Leu Ser Pro Thr Gln Ala Leu Pro
                420                425                430
Pro Pro Leu Ser Met Pro Ser Thr Ser His Cys Thr Pro Pro Pro Pro
                435                440                445
Tyr Pro Thr Asp Cys Ser Ile Val Ser Phe Leu Ala Arg Leu Gly Cys
450                455                460
Ser Ser Cys Leu Asp Tyr Phe Thr Thr Gln Gly Leu Thr Thr Ile Tyr
465                470                475                480
Gln Ile Glu His Tyr Ser Met Asp Asp Leu Ala Ser Leu Lys Ile Pro
                485                490                495
Glu Gln Phe Arg His Ala Ile Trp Lys Gly Ile Leu Asp His Arg Gln
500                505                510
Leu His Glu Phe Ser Ser Pro Ser His Leu Leu Arg Thr Pro Ser Ser
515                520                525
Ala Ser Thr Val Ser Val Gly Ser Ser Glu Thr Arg Gly Glu Arg Val
530                535                540
Ile Asp Ala Val Arg Phe Thr Leu Arg Gln Thr Ile Ser Phe Pro Pro
545                550                555                560
Arg Asp Glu Trp Asn Asp Phe Asn Phe Asp Met Asp Ala Arg Arg Asn
                565                570                575
Lys Gln Gln Arg Ile Lys Glu Glu Gly Glu
                580                585

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<210> 339
 <211> 641
 <212> PRT
 <213> Homo sapiens

<400> 339
 Met Ser Gln Ser Thr Gln Thr Asn Glu Phe Leu Ser Pro Glu Val Phe
 1 5 10 15
 Gln His Ile Trp Asp Phe Leu Glu Gln Pro Ile Cys Ser Val Gln Pro

1000
 700
 500
 300
 100
 0

450 455 460
 Pro Met Met Gly Thr His Met Pro Met Ala Gly Asp Met Asn Gly Leu
 465 470 475 480
 Ser Pro Thr Gln Ala Leu Pro Pro Pro Leu Ser Met Pro Ser Thr Ser
 485 490 495
 His Cys Thr Pro Pro Pro Pro Tyr Pro Thr Asp Cys Ser Ile Val Gly
 500 505 510
 Phe Leu Ala Arg Leu Gly Cys Ser Ser Cys Leu Asp Tyr Phe Thr Thr
 515 520 525
 Gln Gly Leu Thr Thr Ile Tyr Gln Ile Glu His Tyr Ser Met Asp Asp
 530 535 540
 Leu Ala Ser Leu Lys Ile Pro Glu Gln Phe Arg His Ala Ile Trp Lys
 545 550 555 560
 Gly Ile Leu Asp His Arg Gln Leu His Glu Phe Ser Ser Pro Ser His
 565 570 575
 Leu Leu Arg Thr Pro Ser Ser Ala Ser Thr Val Ser Val Gly Ser Ser
 580 585 590
 Glu Thr Arg Gly Glu Arg Val Ile Asp Ala Val Arg Phe Thr Leu Arg
 595 600 605
 Gln Thr Ile Ser Phe Pro Pro Arg Asp Glu Trp Asn Asp Phe Asn Phe
 610 615 620
 Asp Met Asp Ala Arg Arg Asn Lys Gln Gln Arg Ile Lys Glu Glu Gly
 625 630 635 640
 Glu

<210> 340
 <211> 448
 <212> PRT
 <213> Homo sapiens

<400> 340
 Met Ser Gln Ser Thr Gln Thr Asn Glu Phe Leu Ser Pro Glu Val Phe
 1 5 10 15
 Gln His Ile Trp Asp Phe Leu Glu Gln Pro Ile Cys Ser Val Gln Pro
 20 25 30
 Ile Asp Leu Asn Phe Val Asp Glu Pro Ser Glu Asp Gly Ala Thr Asn
 35 40 45
 Lys Ile Glu Ile Ser Met Asp Cys Ile Arg Met Gln Asp Ser Asp Leu
 50 55 60
 Ser Asp Pro Met Trp Pro Gln Tyr Thr Asn Leu Gly Leu Leu Asn Ser
 65 70 75 80
 Met Asp Gln Gln Ile Gln Asn Gly Ser Ser Ser Thr Ser Pro Tyr Asn
 85 90 95
 Thr Asp His Ala Gln Asn Ser Val Thr Ala Pro Ser Pro Tyr Ala Gln
 100 105 110
 Pro Ser Ser Thr Phe Asp Ala Leu Ser Pro Ser Pro Ala Ile Pro Ser
 115 120 125
 Asn Thr Asp Tyr Pro Gly Pro His Ser Phe Asp Val Ser Phe Gln Gln
 130 135 140
 Ser Ser Thr Ala Lys Ser Ala Thr Trp Thr Tyr Ser Thr Glu Leu Lys
 145 150 155 160
 Lys Leu Tyr Cys Gln Ile Ala Lys Thr Cys Pro Ile Gln Ile Lys Val

1000700 : 13004

165 170 175
 Met Thr Pro Pro Pro Gln Gly Ala Val Ile Arg Ala Met Pro Val Tyr
 180 185 190
 Lys Lys Ala Glu His Val Thr Glu Val Val Lys Arg Cys Pro Asn His
 195 200 205
 Glu Leu Ser Arg Glu Phe Asn Glu Gly Gln Ile Ala Pro Pro Ser His
 210 215 220
 Leu Ile Arg Val Glu Gly Asn Ser His Ala Gln Tyr Val Glu Asp Pro
 225 230 235 240
 Ile Thr Gly Arg Gln Ser Val Leu Val Pro Tyr Glu Pro Pro Gln Val
 245 250 255
 Gly Thr Glu Phe Thr Thr Val Leu Tyr Asn Phe Met Cys Asn Ser Ser
 260 265 270
 Cys Val Gly Gly Met Asn Arg Arg Pro Ile Leu Ile Ile Val Thr Leu
 275 280 285
 Glu Thr Arg Asp Gly Gln Val Leu Gly Arg Arg Cys Phe Glu Ala Arg
 290 295 300
 Ile Cys Ala Cys Pro Gly Arg Asp Arg Lys Ala Asp Glu Asp Ser Ile
 305 310 315 320
 Arg Lys Gln Gln Val Ser Asp Ser Thr Lys Asn Gly Asp Gly Thr Lys
 325 330 335
 Arg Pro Phe Arg Gln Asn Thr His Gly Ile Gln Met Thr Ser Ile Lys
 340 345 350
 Lys Arg Arg Ser Pro Asp Asp Glu Leu Leu Tyr Leu Pro Val Arg Gly
 355 360 365
 Arg Glu Thr Tyr Glu Met Leu Leu Lys Ile Lys Glu Ser Leu Glu Leu
 370 375 380
 Met Gln Tyr Leu Pro Gln His Thr Ile Glu Thr Tyr Arg Gln Gln Gln
 385 390 395 400
 Gln Gln Gln His Gln His Leu Leu Gln Lys His Leu Leu Ser Ala Cys
 405 410 415
 Phe Arg Asn Glu Leu Val Glu Pro Arg Arg Glu Thr Pro Lys Gln Ser
 420 425 430
 Asp Val Phe Phe Arg His Ser Lys Pro Pro Asn Arg Ser Val Tyr Pro
 435 440 445

<210> 341

<211> 356

<212> PRT

<213> Homo sapiens

<400> 341

Met Leu Tyr Leu Glu Asn Asn Ala Gln Thr Gln Phe Ser Glu Pro Gln
 1 5 10 15
 Tyr Thr Asn Leu Gly Leu Leu Asn Ser Met Asp Gln Gln Ile Gln Asn
 20 25 30
 Gly Ser Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser
 35 40 45
 Val Thr Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala
 50 55 60
 Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro
 65 70 75 80
 His Ser Phe Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala

				85					90					95			
Thr	Trp	Thr	Tyr	Ser	Thr	Glu	Leu	Lys	Lys	Leu	Tyr	Cys	Gln	Ile	Ala		
			100					105					110				
Lys	Thr	Cys	Pro	Ile	Gln	Ile	Lys	Val	Met	Thr	Pro	Pro	Pro	Gln	Gly		
		115					120					125					
Ala	Val	Ile	Arg	Ala	Met	Pro	Val	Tyr	Lys	Lys	Ala	Glu	His	Val	Thr		
	130					135					140						
Glu	Val	Val	Lys	Arg	Cys	Pro	Asn	His	Glu	Leu	Ser	Arg	Glu	Phe	Asn		
145					150					155					160		
Glu	Gly	Gln	Ile	Ala	Pro	Pro	Ser	His	Leu	Ile	Arg	Val	Glu	Gly	Asn		
			165						170					175			
Ser	His	Ala	Gln	Tyr	Val	Glu	Asp	Pro	Ile	Thr	Gly	Arg	Gln	Ser	Val		
		180						185					190				
Leu	Val	Pro	Tyr	Glu	Pro	Pro	Gln	Val	Gly	Thr	Glu	Phe	Thr	Thr	Val		
		195					200					205					
Leu	Tyr	Asn	Phe	Met	Cys	Asn	Ser	Ser	Cys	Val	Gly	Gly	Met	Asn	Arg		
	210					215				220							
Arg	Pro	Ile	Leu	Ile	Ile	Val	Thr	Leu	Glu	Thr	Arg	Asp	Gly	Gln	Val		
225					230					235					240		
Leu	Gly	Arg	Arg	Cys	Phe	Glu	Ala	Arg	Ile	Cys	Ala	Cys	Pro	Gly	Arg		
				245					250					255			
Asp	Arg	Lys	Ala	Asp	Glu	Asp	Ser	Ile	Arg	Lys	Gln	Gln	Val	Ser	Asp		
			260					265					270				
Ser	Thr	Lys	Asn	Gly	Asp	Gly	Thr	Lys	Arg	Pro	Ser	Arg	Gln	Asn	Thr		
		275					280					285					
His	Gly	Ile	Gln	Met	Thr	Ser	Ile	Lys	Lys	Arg	Arg	Ser	Pro	Asp	Asp		
	290					295				300							
Glu	Leu	Leu	Tyr	Leu	Pro	Val	Arg	Gly	Arg	Glu	Thr	Tyr	Glu	Met	Leu		
305					310					315					320		
Leu	Lys	Ile	Lys	Glu	Ser	Leu	Glu	Leu	Met	Gln	Tyr	Leu	Pro	Gln	His		
				325					330					335			
Thr	Ile	Glu	Thr	Tyr	Arg	Gln	Gln	Gln	Gln	Gln	Gln	His	Gln	His	Leu		
			340					345					350				
Leu	Gln	Lys	Gln														
			355														

<210> 342

<211> 680

<212> PRT

<213> Homo sapiens

<400> 342

Met	Asn	Phe	Glu	Thr	Ser	Arg	Cys	Ala	Thr	Leu	Gln	Tyr	Cys	Pro	Asp		
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Pro	Tyr	Ile	Gln	Arg	Phe	Val	Glu	Thr	Pro	Ala	His	Phe	Ser	Trp	Lys		
			20					25					30				
Glu	Ser	Tyr	Tyr	Arg	Ser	Thr	Met	Ser	Gln	Ser	Thr	Gln	Thr	Asn	Glu		
		35					40					45					
Phe	Leu	Ser	Pro	Glu	Val	Phe	Gln	His	Ile	Trp	Asp	Phe	Leu	Glu	Gln		
	50					55					60						
Pro	Ile	Cys	Ser	Val	Gln	Pro	Ile	Asp	Leu	Asn	Phe	Val	Asp	Glu	Pro		
65					70					75					80		
Ser	Glu	Asp	Gly	Ala	Thr	Asn	Lys	Ile	Glu	Ile	Ser	Met	Asp	Cys	Ile		

				85				90					95			
Arg	Met	Gln	Asp	Ser	Asp	Leu	Ser	Asp	Pro	Met	Trp	Pro	Gln	Tyr	Thr	
			100					105					110			
Asn	Leu	Gly	Leu	Leu	Asn	Ser	Met	Asp	Gln	Gln	Ile	Gln	Asn	Gly	Ser	
		115					120					125				
Ser	Ser	Thr	Ser	Pro	Tyr	Asn	Thr	Asp	His	Ala	Gln	Asn	Ser	Val	Thr	
	130					135					140					
Ala	Pro	Ser	Pro	Tyr	Ala	Gln	Pro	Ser	Ser	Thr	Phe	Asp	Ala	Leu	Ser	
145					150					155					160	
Pro	Ser	Pro	Ala	Ile	Pro	Ser	Asn	Thr	Asp	Tyr	Pro	Gly	Pro	His	Ser	
				165					170					175		
Phe	Asp	Val	Ser	Phe	Gln	Gln	Ser	Ser	Thr	Ala	Lys	Ser	Ala	Thr	Trp	
			180					185					190			
Thr	Tyr	Ser	Thr	Glu	Leu	Lys	Lys	Leu	Tyr	Cys	Gln	Ile	Ala	Lys	Thr	
	195						200					205				
Cys	Pro	Ile	Gln	Ile	Lys	Val	Met	Thr	Pro	Pro	Pro	Gln	Gly	Ala	Val	
	210					215					220					
Ile	Arg	Ala	Met	Pro	Val	Tyr	Lys	Lys	Ala	Glu	His	Val	Thr	Glu	Val	
225					230					235					240	
Val	Lys	Arg	Cys	Pro	Asn	His	Glu	Leu	Ser	Arg	Glu	Phe	Asn	Glu	Gly	
				245					250					255		
Gln	Ile	Ala	Pro	Pro	Ser	His	Leu	Ile	Arg	Val	Glu	Gly	Asn	Ser	His	
			260					265					270			
Ala	Gln	Tyr	Val	Glu	Asp	Pro	Ile	Thr	Gly	Arg	Gln	Ser	Val	Leu	Val	
		275					280					285				
Pro	Tyr	Glu	Pro	Pro	Gln	Val	Gly	Thr	Glu	Phe	Thr	Thr	Val	Leu	Tyr	
	290					295					300					
Asn	Phe	Met	Cys	Asn	Ser	Ser	Cys	Val	Gly	Gly	Met	Asn	Arg	Arg	Pro	
305					310				315						320	
Ile	Leu	Ile	Ile	Val	Thr	Leu	Glu	Thr	Arg	Asp	Gly	Gln	Val	Leu	Gly	
				325					330					335		
Arg	Arg	Cys	Phe	Glu	Ala	Arg	Ile	Cys	Ala	Cys	Pro	Gly	Arg	Asp	Arg	
			340					345					350			
Lys	Ala	Asp	Glu	Asp	Ser	Ile	Arg	Lys	Gln	Gln	Val	Ser	Asp	Ser	Thr	
		355					360					365				
Lys	Asn	Gly	Asp	Gly	Thr	Lys	Arg	Pro	Phe	Arg	Gln	Asn	Thr	His	Gly	
	370					375					380					
Ile	Gln	Met	Thr	Ser	Ile	Lys	Lys	Arg	Arg	Ser	Pro	Asp	Asp	Glu	Leu	
385					390					395					400	
Leu	Tyr	Leu	Pro	Val	Arg	Gly	Arg	Glu	Thr	Tyr	Glu	Met	Leu	Leu	Lys	
				405					410					415		
Ile	Lys	Glu	Ser	Leu	Glu	Leu	Met	Gln	Tyr	Leu	Pro	Gln	His	Thr	Ile	
			420					425								

		515					520					525					
Leu	Ser	Met	Pro	Ser	Thr	Ser	Gln	Cys	Thr	Pro	Pro	Pro	Pro	Tyr	Pro		
	530					535					540						
Thr	Asp	Cys	Ser	Ile	Val	Ser	Phe	Leu	Ala	Arg	Leu	Gly	Cys	Ser	Ser		
545					550					555					560		
Cys	Leu	Asp	Tyr	Phe	Thr	Thr	Gln	Gly	Leu	Thr	Thr	Ile	Tyr	Gln	Ile		
				565					570					575			
Glu	His	Tyr	Ser	Met	Asp	Asp	Leu	Ala	Ser	Leu	Lys	Ile	Pro	Glu	Gln		
			580					585					590				
Phe	Arg	His	Ala	Ile	Trp	Lys	Gly	Ile	Leu	Asp	His	Arg	Gln	Leu	His		
	595						600					605					
Glu	Phe	Ser	Ser	Pro	Ser	His	Leu	Leu	Arg	Thr	Pro	Ser	Ser	Ala	Ser		
	610					615					620						
Thr	Val	Ser	Val	Gly	Ser	Ser	Glu	Thr	Arg	Gly	Glu	Arg	Val	Ile	Asp		
625					630					635					640		
Ala	Val	Arg	Phe	Thr	Leu	Arg	Gln	Thr	Ile	Ser	Phe	Pro	Pro	Arg	Asp		
				645					650					655			
Glu	Trp	Asn	Asp	Phe	Asn	Phe	Asp	Met	Asp	Ala	Arg	Arg	Asn	Lys	Gln		
		660					665						670				
Gln	Arg	Ile	Lys	Glu	Glu	Gly	Glu										
	675						680										

<210> 343

<211> 461

<212> PRT

<213> Homo sapiens

<400> 343

Met	Leu	Tyr	Leu	Glu	Asn	Asn	Ala	Gln	Thr	Gln	Phe	Ser	Glu	Pro	Gln		
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Tyr	Thr	Asn	Leu	Gly	Leu	Leu	Asn	Ser	Met	Asp	Gln	Gln	Ile	Gln	Asn		
		20					25						30				
Gly	Ser	Ser	Ser	Thr	Ser	Pro	Tyr	Asn	Thr	Asp	His	Ala	Gln	Asn	Ser		
		35				40						45					
Val	Thr	Ala	Pro	Ser	Pro	Tyr	Ala	Gln	Pro	Ser	Ser	Thr	Phe	Asp	Ala		
	50					55					60						
Leu	Ser	Pro	Ser	Pro	Ala	Ile	Pro	Ser	Asn	Thr	Asp	Tyr	Pro	Gly	Pro		
65				70					75					80			
His	Ser	Phe	Asp	Val	Ser	Phe	Gln	Gln	Ser	Ser	Thr	Ala	Lys	Ser	Ala		
			85					90						95			
Thr	Trp	Thr	Tyr	Ser	Thr	Glu	Leu	Lys	Lys	Leu	Tyr	Cys	Gln	Ile	Ala		
		100					105						110				
Lys	Thr	Cys	Pro	Ile	Gln	Ile	Lys	Val	Met	Thr	Pro	Pro	Pro	Gln	Gly		
		115				120					125						
Ala	Val	Ile	Arg	Ala	Met	Pro	Val	Tyr	Lys	Lys	Ala	Glu	His	Val	Thr		
	130				135						140						
Glu	Val	Val	Lys	Arg	Cys	Pro	Asn	His	Glu	Leu	Ser	Arg	Glu	Phe	Asn		
145				150					155					160			
Glu	Gly	Gln	Ile	Ala	Pro	Pro	Ser	His	Leu	Ile	Arg	Val	Glu	Gly	Asn		
			165				170							175			
Ser	His	Ala	Gln	Tyr	Val	Glu	Asp	Pro	Ile	Thr	Gly	Arg	Gln	Ser	Val		
		180				185							190				
Leu	Val	Pro	Tyr	Glu	Pro	Pro	Gln	Val	Gly	Thr	Glu	Phe	Thr	Thr	Val		

1000700-13004

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      195      200      205
Leu Tyr Asn Phe Met Cys Asn Ser Ser Cys Val Gly Gly Met Asn Arg
  210      215      220
Arg Pro Ile Leu Ile Ile Val Thr Leu Glu Thr Arg Asp Gly Gln Val
225      230      235      240
Leu Gly Arg Arg Cys Phe Glu Ala Arg Ile Cys Ala Cys Pro Gly Arg
      245      250      255
Asp Arg Lys Ala Asp Glu Asp Ser Ile Arg Lys Gln Gln Val Ser Asp
      260      265      270
Ser Thr Lys Asn Gly Asp Gly Thr Lys Arg Pro Phe Arg Gln Asn Thr
      275      280      285
His Gly Ile Gln Met Thr Ser Ile Lys Lys Arg Arg Ser Pro Asp Asp
      290      295      300
Glu Leu Leu Tyr Leu Pro Val Arg Gly Arg Glu Thr Tyr Glu Met Leu
305      310      315      320
Leu Lys Ile Lys Glu Ser Leu Glu Leu Met Gln Tyr Leu Pro Gln His
      325      330      335
Thr Ile Glu Thr Tyr Arg Gln Gln Gln Gln Gln Gln His Gln His Leu
      340      345      350
Leu Gln Lys Gln Thr Ser Ile Gln Ser Pro Ser Ser Tyr Gly Asn Ser
      355      360      365
Ser Pro Pro Leu Asn Lys Met Asn Ser Met Asn Lys Leu Pro Ser Val
      370      375      380
Ser Gln Leu Ile Asn Pro Gln Gln Arg Asn Ala Leu Thr Pro Thr Thr
385      390      395      400
Ile Pro Asp Gly Met Gly Ala Asn Ile Pro Met Met Gly Thr His Met
      405      410      415
Pro Met Ala Gly Asp Met Asn Gly Leu Ser Pro Thr Gln Ala Leu Pro
      420      425      430
Pro Pro Leu Ser Met Pro Ser Thr Ser His Cys Thr Pro Pro Pro Pro
      435      440      445
Tyr Pro Thr Asp Cys Ser Ile Val Arg Ile Trp Gln Val
      450      455      460

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<210> 344

<211> 516

<212> PRT

<213> Homo sapiens

<400> 344

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Met Ser Gln Ser Thr Gln Thr Asn Glu Phe Leu Ser Pro Glu Val Phe
  1      5      10      15
Gln His Ile Trp Asp Phe Leu Glu Gln Pro Ile Cys Ser Val Gln Pro
      20      25      30
Ile Asp Leu Asn Phe Val Asp Glu Pro Ser Glu Asp Gly Ala Thr Asn
      35      40      45
Lys Ile Glu Ile Ser Met Asp Cys Ile Arg Met Gln Asp Ser Asp Leu
      50      55      60
Ser Asp Pro Met Trp Pro Gln Tyr Thr Asn Leu Gly Leu Leu Asn Ser
      65      70      75      80
Met Asp Gln Gln Ile Gln Asn Gly Ser Ser Ser Thr Ser Pro Tyr Asn
      85      90      95
Thr Asp His Ala Gln Asn Ser Val Thr Ala Pro Ser Pro Tyr Ala Gln

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1000700-13001

			100						105					110				
Pro	Ser	Ser	Thr	Phe	Asp	Ala	Leu	Ser	Pro	Ser	Pro	Ala	Ile	Pro	Ser			
			115						120					125				
Asn	Thr	Asp	Tyr	Pro	Gly	Pro	His	Ser	Phe	Asp	Val	Ser	Phe	Gln	Gln			
			130						135					140				
Ser	Ser	Thr	Ala	Lys	Ser	Ala	Thr	Trp	Thr	Tyr	Ser	Thr	Glu	Leu	Lys			
145									150					155				
Lys	Leu	Tyr	Cys	Gln	Ile	Ala	Lys	Thr	Cys	Pro	Ile	Gln	Ile	Lys	Val			
								165					170					
Met	Thr	Pro	Pro	Pro	Gln	Gly	Ala	Val	Ile	Arg	Ala	Met	Pro	Val	Tyr			
								180					185					
Lys	Lys	Ala	Glu	His	Val	Thr	Glu	Val	Val	Lys	Arg	Cys	Pro	Asn	His			
								195					200					
Glu	Leu	Ser	Arg	Glu	Phe	Asn	Glu	Gly	Gln	Ile	Ala	Pro	Pro	Ser	His			
								210					215					
Leu	Ile	Arg	Val	Glu	Gly	Asn	Ser	His	Ala	Gln	Tyr	Val	Glu	Asp	Pro			
225									230					235				
Ile	Thr	Gly	Arg	Gln	Ser	Val	Leu	Val	Pro	Tyr	Glu	Pro	Pro	Gln	Val			
								245					250					
Gly	Thr	Glu	Phe	Thr	Thr	Val	Leu	Tyr	Asn	Phe	Met	Cys	Asn	Ser	Ser			
								260					265					
Cys	Val	Gly	Gly	Met	Asn	Arg	Arg	Pro	Ile	Leu	Ile	Ile	Val	Thr	Leu			
								275					280					
Glu	Thr	Arg	Asp	Gly	Gln	Val	Leu	Gly	Arg	Arg	Cys	Phe	Glu	Ala	Arg			
								290					295					
Ile	Cys	Ala	Cys	Pro	Gly	Arg	Asp	Arg	Lys	Ala	Asp	Glu	Asp	Ser	Ile			
305									310					315				
Arg	Lys	Gln	Gln	Val	Ser	Asp	Ser	Thr	Lys	Asn	Gly	Asp	Gly	Thr	Lys			
								325					330					
Arg	Pro	Phe	Arg	Gln	Asn	Thr	His	Gly	Ile	Gln	Met	Thr	Ser	Ile	Lys			
								340					345					
Lys	Arg	Arg	Ser	Pro	Asp	Asp	Glu	Leu	Leu	Tyr	Leu	Pro	Val	Arg	Gly			
								355					360					
Arg	Glu	Thr	Tyr	Glu	Met	Leu	Leu	Lys	Ile	Lys	Glu	Ser	Leu	Glu	Leu			
								370					375					
Met	Gln	Tyr	Leu	Pro	Gln	His	Thr	Ile	Glu	Thr	Tyr	Arg	Gln	Gln	Gln			
385									390					395				
Gln	Gln	Gln	His	Gln	His	Leu	Leu	Gln	Lys	Gln	Thr	Ser	Ile	Gln	Ser			
								405					410					
Pro	Ser	Ser	Tyr	Gly	Asn	Ser	Ser	Pro	Pro	Leu	Asn	Lys	Met	Asn	Ser			
								420					425					
Met	Asn	Lys	Leu	Pro	Ser	Val	Ser	Gln	Leu	Ile	Asn	Pro	Gln	Gln	Arg			
								435					440					
Asn	Ala	Leu	Thr	Pro	Thr	Thr	Ile	Pro	Asp	Gly	Met	Gly	Ala	Asn	Ile			
								450					455					
Pro	Met	Met	Gly	Thr	His	Met	Pro	Met	Ala	Gly	Asp	Met	Asn	Gly	Leu			
465									470					475				
Ser	Pro	Thr	Gln	Ala	Leu	Pro	Pro	Pro	Leu	Ser	Met	Pro	Ser	Thr	Ser			
								485					490					
His	Cys	Thr	Pro	Pro	Pro	Pro	Tyr	Pro	Thr	Asp	Cys	Ser	Ile	Val	Arg			
								500					505					
Ile	Trp	Gln	Val													510		
								515										

<210> 345
 <211> 1800
 <212> DNA
 <213> Homo sapiens

<400> 345
 gcgcctcatt gccactgcag tgactaaagc tgggaagacg ctgggtcagtt cacctgcccc 60
 actggttggt ttttaaaca attctgatac aggcgacatc ctcactgacc gagcaaagat 120
 tgacattcgt atcatcactg tgcaccattg gcttctaggg actccagtgg ggtaggagaa 180
 ggaggtctga aaccctcgca gagggatctt gccctcattc tttgggtctg aaacactggc 240
 agtcgttgga aacaggactc agggataaac cagcgcaatg gattggggga cgctgcacac 300
 tttcatcggg ggtgtcaaca aacactccac cagcatcggg aaggtgtgga tcacagtcac 360
 ctttattttc cgagtcacga tcctagtggg ggctgcccag gaagtgtggg gtgacgagca 420
 agaggacttc gtctgcaaca cactgcaacc gggatgcaaa aatgtgtgct atgaccactt 480
 tttcccgggtg tcccacatcc ggctgtgggc cctccagctg atcttcgtct ccaccccagc 540
 gctgctgggtg gccatgcatg tggcctacta caggcacgaa accactcgca agttcaggcg 600
 aggagagaag aggaatgatt tcaaagacat agaggacatt aaaaagcaca aggttcggat 660
 agaggggtcg ctgtggtgga cgtacaccag cagcatcttt ttccgaatca tctttgaagc 720
 agcctttatg tatgtgtttt acttccttta caatgggtac cacctgccct ggggtgttgaa 780
 atgtgggatt gaccctgcc ccaaccttgt tgactgcttt atttctaggg caacagagaa 840
 gaccgtgttt accattttta tgatttctgc gtctgtgatt tgcattgctg ttaacgtggc 900
 agagtgtgct tacctgctgc tgaaagtgtg ttttaggaga tcaaagagag cacagacgca 960
 aaaaaatcac cccaatcatg ccctaaagga gagtaagcag aatgaaatga atgagctgat 1020
 ttcagatagt ggtcaaaatg caatcacagg tttcccaagc taaacatttc aaggtaaaat 1080
 gtagctgcgt cataaggaga cttctgtctt ctccagaagg caataccaac ctgaaagtgc 1140
 cttctgtagc ctgaagagtt tgtaaatgac tttcataata aatagacact tgagttaact 1200
 ttttgtagga tacttgctcc attcatacac aacgtaatca aatatgtggg ccatctctga 1260
 aaacaagaga ctgcttgaca aaggagcatt gcagtcactt tgacagggtc cttttaagtg 1320
 gactctctga caaagtgggt actttctgaa aatttatata actgttggtg ataaggaaca 1380
 tttatccagg aattgatacg tttattagga aaagatatat ttataggctt ggatgttttt 1440
 agttccgact ttgaatttat ataaagtatt tttataatga ctggctcttc ttacctggaa 1500
 aaacatgcga tgtagtgggt agaattacac cacaagtatc taaatttcca acttacaag 1560
 ggctctatct tgtaaataatt gttttgcatt gtctgttggt aaatttgtga actgtcatga 1620
 tacgcttaag gtgggaaagt gttcattgca caatatatct ttactgcttt ctgaatgtag 1680
 acggaacagt gtggaagcag aaggcttttt taactcatcc gtttgccgca tcgttgacga 1740
 ccactgggag atgtggatgt gggtgcctcc ttttgctcgt ccccggtggc taacccttct 1800

<210> 346
 <211> 261
 <212> PRT
 <213> Homo sapiens

<400> 346
 Met Asp Trp Gly Thr Leu His Thr Phe Ile Gly Gly Val Asn Lys His
 1 5 10 15
 Ser Thr Ser Ile Gly Lys Val Trp Ile Thr Val Ile Phe Ile Phe Arg
 20 25 30
 Val Met Ile Leu Val Val Ala Ala Gln Glu Val Trp Gly Asp Glu Gln
 35 40 45
 Glu Asp Phe Val Cys Asn Thr Leu Gln Pro Gly Cys Lys Asn Val Cys
 50 55 60
 Tyr Asp His Phe Phe Pro Val Ser His Ile Arg Leu Trp Ala Leu Gln

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<210> 347
<211> 1740
<212> DNA
<213> Homo sapiens
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<400> 347						
atgaacaaac	tgtatatcgg	aaacctcagc	gagaacgccg	ccccctcgga	cctagaaagt	60
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ttcgtggact	gcccggaacga	gagctgggcc	ctcaaggcca	tcgaggcgct	ttcaggtaaa	180
atagaactgc	acgggaaacc	catagaagtt	gagcactcgg	tcccaaaaag	gcaaaggatt	240
cggaaacttc	agatacgaaa	tatcccgccct	cattttacagt	gggaggtgct	ggatagttta	300
ctagtccagt	atggagtggg	ggagagctgt	gagcaagtga	acactgactc	ggaaaactgca	360
gttgtaaatg	taacctattc	cagtaaggac	caagctagac	aagcactaga	caaactgaat	420
ggatttcagt	tagagaatth	caccttgaaa	gtagcctata	tccctgatga	aacggccgcc	480
cagcaaaacc	ccttgcagca	gccccgaggt	cgccgggggc	ttgggcagag	gggctcctca	540
aggcaggggt	ctccaggatc	cgtatccaag	cagaaaccat	gtgatttgcc	tctgcgcctg	600
ctggttccca	cccaatttgt	tggagccatc	ataggaaaag	aaggtgccac	cattcggaac	660
atcaccaaac	agaccagtc	taaaatcgat	gtccaccgta	aagaaaatgc	gggggctgct	720
gagaagtcga	ttactatcct	ctctactcct	gaaggcacct	ctgcggcttg	taagtctatt	780
ctggagatta	tgcataagga	agctcaagat	ataaaaattca	cagaagagat	ccccttgaag	840
atthttagctc	ataataactt	tgttggacgt	cttatttggt	aagaaggaag	aatctttaa	900
aaaattgagc	aagacacaga	cactaaaatc	acgatatctc	cattgcagga	attgacgctg	960
tataatccag	aacgcactat	tacagttaaa	ggcaatgttg	agacatgtgc	caaagctgag	1020
gaggagatca	tgaagaaaat	cagggagtct	tatgaaaatg	atattgcttc	tatgaatctt	1080
caagcacatt	taattcctgg	attaaatctg	aacgccttgg	gtctgttccc	accacttca	1140
gggatgccac	ctcccacctc	agggccccct	tcagccatga	ctcctcccta	cccgcagttt	1200
gagcaatcag	aaacggagac	tgttcatctg	tttatcccag	ctctatcagt	cggtgccatc	1260

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atcggcaagc agggccagca catcaagcag ctttctcgct ttgctggagc ttcaattaag 1320
attgctccag cggaagcacc agatgctaaa gtgaggatgg tgattatcac tggaccacca 1380
gaggctcagt tcaaggctca gggaagaatt tatggaaaaa ttaaagaaga aaactttgtt 1440
agtcctaaag aagaggtgaa acttgaagct catatcagag tgccatcctt tgctgctggc 1500
agagttattg gaaaaggagg caaaacggtg aatgaacttc agaatttgtc aagtgcagaa 1560
gttggtgtcc ctcgtgacca gacacctgat gagaatgacc aagtggttgt caaaataact 1620
ggtcacttct atgcttgcca gggtgcccag agaaaaattc aggaaattct gactcaggta 1680
aagcagcacc aacaacagaa ggctctgcaa agtggaccac ctcagtcaag acggaagtaa 1740

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<210> 348
<211> 579
<212> PRT
<213> Homo sapiens

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<400> 348
Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser
 1          5          10          15
Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro
          20          25          30
Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser
          35          40          45
Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
          50          55          60
Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
65          70          75          80
Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
          85          90          95
Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
          100          105          110
Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
          115          120          125
Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
          130          135          140
Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala
145          150          155          160
Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
          165          170          175
Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys
          180          185          190
Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly
          195          200          205
Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln
          210          215          220
Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala
225          230          235          240
Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala Ala
          245          250          255
Cys Lys Ser Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys
          260          265          270
Phe Thr Glu Glu Ile Pro Leu Lys Ile Leu Ala His Asn Asn Phe Val
          275          280          285
Gly Arg Leu Ile Gly Lys Glu Gly Arg Asn Leu Lys Lys Ile Glu Gln
          290          295          300

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1000700-1000

Asp Thr Asp Thr Lys Ile Thr Ile Ser Pro Leu Gln Glu Leu Thr Leu
 305 310 315 320
 Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Asn Val Glu Thr Cys
 325 330 335
 Ala Lys Ala Glu Glu Ile Met Lys Lys Ile Arg Glu Ser Tyr Glu
 340 345 350
 Asn Asp Ile Ala Ser Met Asn Leu Gln Ala His Leu Ile Pro Gly Leu
 355 360 365
 Asn Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro
 370 375 380
 Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro Tyr Pro Gln Phe
 385 390 395 400
 Glu Gln Ser Glu Thr Glu Thr Val His Leu Phe Ile Pro Ala Leu Ser
 405 410 415
 Val Gly Ala Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser
 420 425 430
 Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala Glu Ala Pro Asp
 435 440 445
 Ala Lys Val Arg Met Val Ile Ile Thr Gly Pro Pro Glu Ala Gln Phe
 450 455 460
 Lys Ala Gln Gly Arg Ile Tyr Gly Lys Ile Lys Glu Glu Asn Phe Val
 465 470 475 480
 Ser Pro Lys Glu Glu Val Lys Leu Glu Ala His Ile Arg Val Pro Ser
 485 490 495
 Phe Ala Ala Gly Arg Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu
 500 505 510
 Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr
 515 520 525
 Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr
 530 535 540
 Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val
 545 550 555 560
 Lys Gln His Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser
 565 570 575
 Arg Arg Lys

<210> 349
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 349
 atgtggcagc ccctcttctt caagtggctc ttgtcctggt gccctgggag ttctcaaatt 60
 gctgcagcag cctccacca gcctgaggat gacatcaata cacagaggaa gaagagtcag 120
 gaaaagatga gagaagttac agactctcct gggcgacccc gagagcttac cattcctcag 180
 acttcttcac atggtgctaa cagattt 207

<210> 350
 <211> 69
 <212> PRT
 <213> Homo sapiens

<400> 350

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Met Trp Gln Pro Leu Phe Phe Lys Trp Leu Leu Ser Cys Cys Pro Gly
 1          5          10          15
Ser Ser Gln Ile Ala Ala Ala Ala Ser Thr Gln Pro Glu Asp Asp Ile
          20          25          30
Asn Thr Gln Arg Lys Lys Ser Gln Glu Lys Met Arg Glu Val Thr Asp
          35          40          45
Ser Pro Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His
          50          55          60
Gly Ala Asn Arg Phe
65

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<210> 351

<211> 1012

<212> DNA

<213> Homo sapiens

<400> 351

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ccctctagaa ataattttgt ttaactttta gaaggagata tacatatgca tcaccatcac 60
catcacacgg ccgcgtccga taacttccag ctgtcccagg gtgggcaggg attcgccatt 120
ccgatcgggc aggcgatggc gatcgcgggc cagatcaagc ttcccaccgt tcatatcggg 180
cctaccgcct tcctcggtt gggtgttgtc gacaacaacg gcaacggcgc acgagtccaa 240
cgcggtggtcg ggagcgctcc ggcggaagt ctcggcatct ccaccggcga cgtgatcacc 300
gcggtcgcacg gcgctccgat caactcggcc accgcgatgg cggacgcgct taacgggcat 360
catcccgggtg acgtcatctc ggtgacctgg caaaccaagt cgggcggcac gcgtacaggg 420
aacgtgacat tggccgaggg acccccggcc gaattcatgg attgggggac gctgcacact 480
ttcatcgggg gtgtcaacaa aactccacc agcatcggga aggtgtggat cacagtcac 540
tttatatttc gagtcatgat ctcgtggtg gctgcccagg aagtgtgggg tgacgagcaa 600
gaggacttcg tctgcaacac actgcaaccg ggatgcaaaa atgtgtgcta tgaccacttt 660
ttcccgggtg cccacatccg gctgtggggc ctccagctga tcttcgtctc caccacagcg 720
ctgctggtgg ccatgcatgt ggctactac aggcacgaaa ccactcgcaa gttcaggcga 780
ggagagaaga ggaatgattt caaagacata gaggacatta aaaagcagaa gggttcggata 840
gaggggtgac tcgagcacca ccaccaccac cactgagatc cggctgctaa caaagcccga 900
aaggaagctg agttggctgc tgccaccgct gagcaataac tagcataacc ccttggggcc 960
tctaaacggg tcttgagggg ttttttgctg aaaggaggaa ctatatccgg at 1012

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<210> 352

<211> 267

<212> PRT

<213> Homo sapiens

<400> 352

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Met His His His His His His Thr Ala Ala Ser Asp Asn Phe Gln Leu
 1          5          10          15
Ser Gln Gly Gly Gln Gly Phe Ala Ile Pro Ile Gly Gln Ala Met Ala
          20          25          30
Ile Ala Gly Gln Ile Lys Leu Pro Thr Val His Ile Gly Pro Thr Ala
          35          40          45
Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val
          50          55          60
Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr
65          70          75          80
Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr

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100070013001


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<210> 353
<211> 900
<212> DNA
<213> Homo sapiens
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<210> 354
<211> 299
<212> PRT
<213> Homo sapiens
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<400> 354

Met His His His His His His Thr Ala Ala Ser Asp Asn Phe Gln Leu
 1 5 10 15
 Ser Gln Gly Gly Gln Gly Phe Ala Ile Pro Ile Gly Gln Ala Met Ala
 20 25 30
 Ile Ala Gly Gln Ile Lys Leu Pro Thr Val His Ile Gly Pro Thr Ala
 35 40 45
 Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val
 50 55 60
 Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr
 65 70 75 80
 Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr
 85 90 95
 Ala Met Ala Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser
 100 105 110
 Val Thr Trp Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr
 115 120 125
 Leu Ala Glu Gly Pro Pro Ala Glu Phe His Glu Thr Thr Arg Lys Phe
 130 135 140
 Arg Arg Gly Glu Lys Arg Asn Asp Phe Lys Asp Ile Glu Asp Ile Lys
 145 150 155 160
 Lys Gln Lys Val Arg Ile Glu Gly Ser Leu Trp Trp Thr Tyr Thr Ser
 165 170 175
 Ser Ile Phe Phe Arg Ile Ile Phe Glu Ala Ala Phe Met Tyr Val Phe
 180 185 190
 Tyr Phe Leu Tyr Asn Gly Tyr His Leu Pro Trp Val Leu Lys Cys Gly
 195 200 205
 Ile Asp Pro Cys Pro Asn Leu Val Asp Cys Phe Ile Ser Arg Pro Thr
 210 215 220
 Glu Lys Thr Val Phe Thr Ile Phe Met Ile Ser Ala Ser Val Ile Cys
 225 230 235 240
 Met Leu Leu Asn Val Ala Glu Leu Cys Tyr Leu Leu Leu Lys Val Cys
 245 250 255
 Phe Arg Arg Ser Lys Arg Ala Gln Thr Gln Lys Asn His Pro Asn His
 260 265 270
 Ala Leu Lys Glu Ser Lys Gln Asn Glu Met Asn Glu Leu Ile Ser Asp
 275 280 285
 Ser Gly Gln Asn Ala Ile Thr Gly Phe Pro Ser
 290 295

<210> 355

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 355

ggagtacagc ttcaagacaa tggg

24

<210> 356

<211> 31

<212> DNA

Met 1	Gln	His	His	His 5	His	His	His	Gly	Val 10	Gln	Leu	Gln	Asp	Asn 15	Gly
Tyr	Asn	Gly	Leu	Leu	Ile	Ala	Ile	Asn	Pro	Gln	Val	Pro	Glu	Asn	Gln
			20					25					30		
Asn	Leu	Ile	Ser	Asn	Ile	Lys	Glu	Met	Ile	Thr	Glu	Ala	Ser	Phe	Tyr
		35					40					45			
Leu	Phe	Asn	Ala	Thr	Lys	Arg	Arg	Val	Phe	Phe	Arg	Asn	Ile	Lys	Ile
	50					55					60				
Leu	Ile	Pro	Ala	Thr	Trp	Lys	Ala	Asn	Asn	Asn	Ser	Lys	Ile	Lys	Gln
65					70				75						80
Glu	Ser	Tyr	Glu	Lys	Ala	Asn	Val	Ile	Val	Thr	Asp	Trp	Tyr	Gly	Ala
				85					90					95	
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			100					105					110		
Gly	Lys	Tyr	Ile	His	Phe	Thr	Pro	Asn	Phe	Leu	Leu	Asn	Asp	Asn	Leu
		115					120					125			
Thr	Ala	Gly	Tyr	Gly	Ser	Arg	Gly	Arg	Val	Phe	Val	His	Glu	Trp	Ala
	130					135					140				
His	Leu	Arg	Trp	Gly	Val	Phe	Asp	Glu	Tyr	Asn	Asn	Asp	Lys	Pro	Phe
145					150				155						160
Tyr	Ile	Asn	Gly	Gln	Asn	Gln	Ile	Lys	Val	Thr	Arg	Cys	Ser	Ser	Asp
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			180					185					190		
Cys	Ile	Ile	Ser	Lys	Leu	Phe	Lys	Glu	Gly	Cys	Thr	Phe	Ile	Tyr	Asn
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Asn	Leu	Gln	Asn	Gln	Met	Cys	Ser	Leu	Arg	Ser	Ala	Trp	Asp	Val	Ile
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Thr	Asp	Ser	Ala	Asp	Phe	His	His	Ser	Phe	Pro	Met	Asn	Gly	Thr	Glu
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Val	Cys	Leu	Val	Leu	Asp	Val	Ser	Ser	Lys	Met	Ala	Glu	Ala	Asp	Arg
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Lys	Leu	Leu	Gly	Asn	Cys	Leu	Pro	Thr	Val	Leu	Ser	Ser	Gly	Ser	Thr
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Val	Lys	Pro	His	His	Gln	Leu	Lys	Asn	Thr	Val	Thr	Val	Asp	Asn	Thr
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545					550					555					560
His	Ser	Leu	Gln	Ala	Leu	Lys	Val	Thr	Val	Thr	Ser	Arg	Ala	Ser	Asn
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Phe	Tyr	Pro	Ile	Leu	Asn	Ala	Thr	Val	Thr	Ala	Thr	Val	Glu	Pro	Glu
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Lys	Ser	Val	Gly	Arg	Asn	Glu	Glu	Glu	Arg	Lys	Trp	Gly	Phe	Ser	Arg
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Val	Ser	Ser	Gly	Gly	Ser	Phe	Ser	Val	Leu	Gly	Val	Pro	Ala	Gly	Pro
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 755 760 765
 Phe Asp Gln Gly Gln Ala Thr Ser Tyr Glu Ile Arg Met Ser Lys Ser
 770 775 780
 Leu Gln Asn Ile Gln Asp Asp Phe Asn Asn Ala Ile Leu Val Asn Thr
 785 790 795 800
 Ser Lys Arg Asn Pro Gln Gln Ala Gly Ile Arg Glu Ile Phe Thr Phe
 805 810 815
 Ser Pro Gln Ile Ser Thr Asn Gly Pro Glu His Gln Pro Asn Gly Glu
 820 825 830
 Thr His Glu Ser His Arg Ile Tyr Val Ala Ile Arg Ala Met Asp Arg
 835 840 845
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 850 855 860
 Ile Pro Pro Asn Ser Asp Pro Val Pro Ala Arg Asp Tyr Leu Ile Leu
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 Lys Gly Val Leu Thr Ala Met Gly Leu Ile Gly Ile Ile Cys Leu Ile
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<211> 2773

<212> DNA

<213> Homo sapiens

<400> 358

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gaaatgataa ctgaagcttc attttaccta tttaatgcta ccaagagaag agtatttttc 180
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 Thr Gln Pro Glu Asp Asp Ile Asn Thr Gln Arg Lys Lys Ser Gln Glu
 35 40 45
 Lys Met Arg Glu Val Thr Asp Ser Pro Gly Arg Pro Arg Glu Leu Thr
 50 55 60
 Ile Pro Gln Thr Ser Ser His Gly Ala Asn Arg Phe Val
 65 70 75

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 <213> Homo sapiens

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 aatacacaga ggaagaagag tcaggaaaag atgagagaag ttacagactc tcctgggcga 180
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 <211> 20
 <212> PRT
 <213> Homo sapiens

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 Ser Ser Gln Ile
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 <211> 60
 <212> DNA
 <213> Homo sapiens

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<210> 365
 <211> 20
 <212> PRT
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<400> 365
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 <213> Homo sapiens

<400> 366
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 <213> Homo sapiens

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<210> 368
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 aaggaatttg ccaagaaggt acaagagctg cagaaaagca atcagggttg cttccaacat 480
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<211> 708

<212> PRT

<213> Homo sapiens

<400> 369

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Gly Pro Glu Ala Phe Asp Pro Lys Arg Leu Leu Glu Glu Phe Val Asn
          35          40          45
His Ile Gln Glu Leu Gln Ile Met Asp Glu Arg Ile Gln Arg Lys Val
          50          55          60
Glu Lys Leu Glu Gln Gln Cys Gln Lys Glu Ala Lys Glu Phe Ala Lys
65          70          75          80
Lys Val Gln Glu Leu Gln Lys Ser Asn Gln Val Ala Phe Gln His Phe
          85          90          95
Gln Glu Leu Asp Glu His Ile Ser Tyr Val Ala Thr Lys Val Cys His
          100          105          110
Leu Gly Asp Gln Leu Glu Gly Val Asn Thr Pro Arg Gln Arg Ala Val
          115          120          125
Glu Ala Gln Lys Leu Met Lys Tyr Phe Asn Glu Phe Leu Asp Gly Glu
          130          135          140
Leu Lys Ser Asp Val Phe Thr Asn Ser Glu Lys Ile Lys Glu Ala Ala
145          150          155          160
Asp Ile Ile Gln Lys Leu His Leu Ile Ala Gln Glu Leu Pro Phe Asp
          165          170          175
Arg Phe Ser Glu Val Lys Ser Lys Ile Ala Ser Lys Tyr His Asp Leu
          180          185          190
Glu Cys Gln Leu Ile Gln Glu Phe Thr Ser Ala Gln Arg Arg Gly Glu
          195          200          205
Ile Ser Arg Met Arg Glu Val Ala Ala Val Leu Leu His Phe Lys Gly
          210          215          220
Tyr Ser His Cys Val Asp Val Tyr Ile Lys Gln Cys Gln Glu Gly Ala
225          230          235          240
Tyr Leu Arg Asn Asp Ile Phe Glu Asp Ala Gly Ile Leu Cys Gln Arg
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Val Asn Lys Gln Val Gly Asp Ile Phe Ser Asn Pro Glu Thr Val Leu

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Lys	Asn	Leu	Tyr	Asp	Leu	Tyr	Thr	Arg	Thr	Thr	Asn	Leu	Ser	Ser	Lys		
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Leu	Ile	Lys	Ser	Ile	Phe	Ile	Ser	Tyr	Leu	Glu	Asn	Tyr	Ile	Glu	Val		
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	355						360					365					
Tyr	Asp	Ser	Lys	Asn	His	Gln	Lys	Arg	Ser	Ile	Gly	Thr	Gly	Gly	Ile		
370						375					380						
Gln	Asp	Leu	Lys	Glu	Arg	Ile	Arg	Gln	Arg	Thr	Asn	Leu	Pro	Leu	Gly		
385					390					395					400		
Pro	Ser	Ile	Asp	Thr	His	Gly	Glu	Thr	Phe	Leu	Ser	Gln	Glu	Val	Val		
				405					410					415			
Val	Asn	Leu	Leu	Gln	Glu	Thr	Lys	Gln	Ala	Phe	Glu	Arg	Cys	His	Arg		
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Leu	Ser	Asp	Pro	Ser	Asp	Leu	Pro	Arg	Asn	Ala	Phe	Arg	Ile	Phe	Thr		
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Ile	Leu	Val	Glu	Phe	Leu	Cys	Ile	Glu	His	Ile	Asp	Tyr	Ala	Leu	Glu		
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Thr	Gly	Leu	Ala	Gly	Ile	Pro	Ser	Ser	Asp	Ser	Arg	Asn	Ala	Asn	Leu		
465					470					475					480		
Tyr	Phe	Leu	Asp	Val	Val	Gln	Gln	Ala	Asn	Thr	Ile	Phe	His	Leu	Phe		
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	515					520						525					
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	530					535					540						
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Lys	Pro	Glu	Asp	Glu	Asn	Asn	Val	Leu	Ile	Gln	Tyr	Thr	Asn	Ala	Cys		
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Val	Lys	Val	Cys	Ala	Tyr	Val	Arg	Lys	Gln	Val	Glu	Lys	Ile	Lys	Asn		
		580						585					590				
Ser	Met	Asp	Gly	Lys	Asn	Val	Asp	Thr	Val	Leu	Met	Glu	Leu	Gly	Val		
	595						600					605					
Arg	Phe	His	Arg	Leu	Ile	Tyr	Glu	His	Leu	Gln	Gln	Tyr	Ser	Tyr	Ser		
	610				615						620						
Cys	Met	Gly	Gly	Met	Leu	Ala	Ile	Cys	Asp	Val	Ala	Glu	Tyr	Arg	Lys		
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Cys	Ala	Lys	Asp	Phe	Lys	Ile	Pro	Met	Val	Leu	His	Leu	Phe	Asp	Thr		
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Leu	His	Ala	Leu	Cys	Asn	Leu	Leu	Val	Val	Ala	Pro	Asp	Asn	Leu	Lys		
		660						665					670				
Gln	Val	Cys	Ser	Gly	Glu	Gln	Leu	Ala	Asn	Leu	Asp	Lys	Asn	Ile	Leu		
	675					680						685					
His	Ser	Phe	Val	Gln	Leu	Arg	Ala	Asp	Tyr	Arg	Ser	Ala	Arg	Leu	Ala		

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695

700

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<211> 20

<212> PRT

<213> Homo sapiens

<400> 376

Leu	Gln	Ser	Ala	Val	Ser	Asn	Ile	Ala	Gln	Ala	Pro	Leu	Phe	Ile	Pro
1				5					10					15	
Pro	Asn	Ser	Asp												
				20											

<210> 377

<211> 20

<212> PRT

<213> Homo sapiens

<400> 377

Val	Asn	His	Ser	Pro	Ser	Ile	Ser	Thr	Pro	Ala	His	Ser	Ile	Pro	Gly
1				5					10					15	
Ser	His	Ala	Met												
				20											

<210> 378

<211> 20

<212> PRT

<213> Homo sapiens

<400> 378

Pro	Glu	Thr	Gly	Asp	Pro	Val	Thr	Leu	Arg	Leu	Leu	Asp	Asp	Gly	Ala
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Gly	Ala	Asp	Val												
				20											

<210> 379

<211> 20

<212> PRT

<213> Homo sapiens

<400> 379

Ala	Val	Pro	Pro	Ala	Thr	Val	Glu	Ala	Phe	Val	Glu	Arg	Asp	Ser	Leu
1				5					10					15	
His	Phe	Pro	His												
				20											

<210> 380

1000700-13001

<211> 20
 <212> PRT
 <213> Homo sapiens

<400> 380
 Ser Arg Ile Ser Ser Gly Thr Gly Asp Ile Phe Gln Gln His Ile Gln
 1 5 10 15
 Leu Glu Ser Thr
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<210> 381
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 381
 Lys Asn Thr Val Thr Val Asp Asn Thr Val Gly Asn Asp Thr Met Phe
 1 5 10 15
 Leu Val Thr Trp
 20

<210> 382
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 382
 Lys Pro Gly His Trp Thr Tyr Thr Leu Asn Asn Thr His His Ser Leu
 1 5 10 15
 Gln Ala Leu Lys
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<210> 383
 <211> 29
 <212> DNA
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<220>
 <223> PCR primer

<400> 383
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29

<210> 384
 <211> 35
 <212> DNA
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<220>
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1000700-113001

<400> 384
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<210> 385
<211> 32
<212> DNA
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<220>
<223> PCR primer

<400> 385
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<210> 386
<211> 30
<212> DNA
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<220>
<223> PCR primer

<400> 386
cggctcgagt tagcttgggc ctgtgattgc 30

<210> 387
<211> 20
<212> PRT
<213> Homo sapiens

<400> 387
Phe Phe Lys Trp Leu Leu Ser Cys Cys Pro Gly Ser Ser Gln Ile Ala
1 5 10 15
Ala Ala Ala Ser
20

<210> 388
<211> 19
<212> PRT
<213> Homo sapiens

<400> 388
Leu Ser Cys Cys Pro Gly Ser Ser Gln Ile Ala Ala Ala Ser Thr Gln
1 5 10 15
Pro Glu Asp

<210> 389
<211> 20
<212> PRT
<213> Homo sapiens

1000700-1300

<400> 389

Ala	Ala	Ala	Ala	Ser	Thr	Gln	Pro	Glu	Asp	Asp	Ile	Asn	Thr	Gln	Arg
1				5					10					15	
Lys	Lys	Ser	Gln												
			20												

<210> 390

<211> 20

<212> PRT

<213> Homo sapiens

<400> 390

Thr	Gln	Pro	Glu	Asp	Asp	Ile	Asn	Thr	Gln	Arg	Lys	Lys	Ser	Gln	Glu
1				5					10					15	
Lys	Met	Arg	Glu												
			20												

<210> 391

<211> 20

<212> PRT

<213> Homo sapiens

<400> 391

Asp	Ile	Asn	Thr	Gln	Arg	Lys	Lys	Ser	Gln	Glu	Lys	Met	Arg	Glu	Val
1				5					10					15	
Thr	Asp	Ser	Pro												
			20												

<210> 392

<211> 20

<212> PRT

<213> Homo sapiens

<400> 392

Arg	Lys	Lys	Ser	Gln	Glu	Lys	Met	Arg	Glu	Val	Thr	Asp	Ser	Pro	Gly
1				5					10					15	
Arg	Pro	Arg	Glu												
			20												

<210> 393

<211> 20

<212> PRT

<213> Homo sapiens

<400> 393

Glu	Lys	Met	Arg	Glu	Val	Thr	Asp	Ser	Pro	Gly	Arg	Pro	Arg	Glu	Leu
1				5					10					15	
Thr	Ile	Pro	Gln												
			20												

1000700-13001

<210> 394
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 394
 Val Thr Asp Ser Pro Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr
 1 5 10 15
 Ser Ser His Gly
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<210> 395
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 395
 Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His Gly Ala
 1 5 10 15
 Asn Arg Phe

<210> 396
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 396
 Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser
 1 5 10 15
 Asp Leu Glu

<210> 397
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 397
 Ser Glu Asn Ala Ala Pro Ser Asp Leu Glu Ser Ile Phe Lys Asp Ala
 1 5 10 15
 Lys Ile Pro Val
 20

<210> 398
 <211> 20
 <212> PRT
 <213> Homo sapiens

1000700-113001

<400> 398

Ser	Ile	Phe	Lys	Asp	Ala	Lys	Ile	Pro	Val	Ser	Gly	Pro	Phe	Leu	Val
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Lys	Thr	Gly	Tyr												
			20												

<210> 399

<211> 20

<212> PRT

<213> Homo sapiens

<400> 399

Ser	Gly	Pro	Phe	Leu	Val	Lys	Thr	Gly	Tyr	Ala	Phe	Val	Asp	Cys	Pro
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Asp	Glu	Ser	Trp												
			20												

<210> 400

<211> 20

<212> PRT

<213> Homo sapiens

<400> 400

Ala	Phe	Val	Asp	Cys	Pro	Asp	Glu	Ser	Trp	Ala	Leu	Lys	Ala	Ile	Glu
1				5					10					15	
Ala	Leu	Ser	Gly												
			20												

<210> 401

<211> 20

<212> PRT

<213> Homo sapiens

<400> 401

Ala	Leu	Lys	Ala	Ile	Glu	Ala	Leu	Ser	Gly	Lys	Ile	Glu	Leu	His	Gly
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Lys	Pro	Ile	Glu												
			20												

<210> 402

<211> 20

<212> PRT

<213> Homo sapiens

<400> 402

Lys	Ile	Glu	Leu	His	Gly	Lys	Pro	Ile	Glu	Val	Glu	His	Ser	Val	Pro
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Lys	Arg	Gln	Arg												
			20												

1000700-113001

<210> 403
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 403
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 1 5 10 15
 Arg Asn Ile Pro
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<210> 404
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 404
 Ile Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu
 1 5 10 15
 Val Leu Asp Ser
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<210> 405
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 405
 Ala Val Val Asn Val Thr Tyr Ser Ser Lys Asp Gln Ala Arg Gln Ala
 1 5 10 15
 Leu Asp Lys Leu
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<210> 406
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 406
 Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu Glu
 1 5 10 15
 Asn Phe Thr Leu
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<210> 407
 <211> 20
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 <213> Homo sapiens

10007700-113001


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Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys Pro Cys Asp
 1          5          10          15
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<210> 412
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 <212> PRT
 <213> Homo sapiens

<400> 412
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 1 5 10 15
 Phe Val Gly Ala
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<210> 413
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 413
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 1 5 10 15
 Ala Thr Ile Arg
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<210> 414
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 414
 Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln Thr
 1 5 10 15
 Gln Ser Lys Ile
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<210> 415
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 415
 Asn Ile Thr Lys Gln Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu
 1 5 10 15
 Asn Ala Gly Ala
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<210> 416
 <211> 20
 <212> PRT
 <213> Homo sapiens

1000700-13001

<400> 416

Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala Glu Lys Ser Ile Thr
 1 5 10 15
 Ile Leu Ser Thr
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<210> 417

<211> 20

<212> PRT

<213> Homo sapiens

<400> 417

Ala Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala
 1 5 10 15
 Ala Cys Lys Ser
 20

<210> 418

<211> 20

<212> PRT

<213> Homo sapiens

<400> 418

Pro Glu Gly Thr Ser Ala Ala Cys Lys Ser Ile Leu Glu Ile Met His
 1 5 10 15
 Lys Glu Ala Gln
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<210> 419

<211> 20

<212> PRT

<213> Homo sapiens

<400> 419

Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys Phe Thr Glu
 1 5 10 15
 Glu Ile Pro Leu
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<210> 420

<211> 455

<212> DNA

<213> Homo sapiens

<400> 420

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 catctagaaa gaagcgctta agatgtggca gccctcttc ttcaagtggc tcttgtcctg 180
 ttgccctggg agttctcaaa ttgctgcagc agcctccacc cagcctgagg atgacatcaa 240
 tacacagagg aagaagagtc aggaaaagat gagagaagtt acagactctc ctgggacgacc 300

1000700-1300
 1000700-1300

ccgagagctt accattcctc agacttcttc acatgggtgct aacagatttg ttcctaaaag 360
 taaagctcta gaggccgtca aattggcaat agaagccggg ttccaccata ttgattctgc 420
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 <211> 24
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<220>
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<400> 421
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<210> 422
 <211> 34
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 422
 catgagaatt catcacatgc ccttgaaggc tccc 34

<210> 423
 <211> 161
 <212> PRT
 <213> Homo sapiens

<400> 423
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 1 5 10 15
 Tyr Phe Glu Asn Phe Leu Ala Ala Trp Arg Pro Val Lys Ala Ser Asp
 20 25 30
 Gly Asp Tyr Tyr Thr Leu Ala Val Pro Met Gly Asp Val Pro Met Asp
 35 40 45
 Gly Ile Ser Val Ala Asp Ile Gly Ala Ala Val Ser Ser Ile Phe Asn
 50 55 60
 Ser Pro Glu Glu Phe Leu Gly Lys Ala Val Gly Leu Ser Ala Glu Ala
 65 70 75 80
 Leu Thr Ile Gln Gln Tyr Ala Asp Val Leu Ser Lys Ala Leu Gly Lys
 85 90 95
 Glu Val Arg Asp Ala Lys Ile Thr Pro Glu Ala Phe Glu Lys Leu Gly
 100 105 110
 Phe Pro Ala Ala Lys Glu Ile Ala Asn Met Cys Arg Phe Tyr Glu Met
 115 120 125
 Lys Pro Asp Arg Asp Val Asn Leu Thr His Gln Leu Asn Pro Lys Val
 130 135 140
 Lys Ser Phe Ser Gln Phe Ile Ser Glu Asn Gln Gly Ala Phe Lys Gly
 145 150 155 160
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100070071001

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 <212> DNA
 <213> Homo sapiens

<400> 424
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 ccgatgggag atgtaccaat ggatggatc tctgttgctg atattggagc agccgtctct 180
 agcattttta attctccaga ggaattttta ggcaaggccg tggggctcag tgcagaagca 240
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 gcaaagatta ccccggaagc tttcgagaag ctgggattcc ctgcagcaaa ggaaatagcc 360
 aatatgtgtc gtttctatga aatgaagcca gaccgagatg tcaatctcac ccaccaacta 420
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<210> 425
 <211> 32
 <212> DNA
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<220>
 <223> PCR primer

<400> 425
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<210> 426
 <211> 33
 <212> DNA
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<220>
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<400> 426
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<210> 427
 <211> 586
 <212> PRT
 <213> Homo sapiens

<400> 427
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 20 25 30
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 35 40 45
 Val Asp Cys Pro Asp Glu Ser Trp Ala Leu Lys Ala Ile Glu Ala Leu
 50 55 60

1000700-113001

Ser 65	Gly	Lys	Ile	Glu	Leu 70	His	Gly	Lys	Pro	Ile 75	Glu	Val	Glu	His	Ser 80
Val	Pro	Lys	Arg	Gln 85	Arg	Ile	Arg	Lys	Leu 90	Gln	Ile	Arg	Asn	Ile	Pro 95
Pro	His	Leu	Gln 100	Trp	Glu	Val	Leu	Asp	Ser	Leu	Leu	Val	Gln	Tyr	Gly
Val	Val	Glu	Ser 115	Cys	Glu	Gln	Val	Asn	Thr	Asp	Ser	Glu	Thr	Ala	Val
Val	Asn 130	Val	Thr	Tyr	Ser	Ser	Lys 135	Asp	Gln	Ala	Arg	Gln	Ala	Leu	Asp
Lys 145	Leu	Asn	Gly	Phe	Gln 150	Leu	Glu	Asn	Phe	Thr	Leu	Lys	Val	Ala	Tyr 160
Ile	Pro	Asp	Glu	Thr 165	Ala	Ala	Gln	Gln	Asn	Pro	Leu	Gln	Gln	Pro	Arg
Gly	Arg	Arg	Gly 180	Leu	Gly	Gln	Arg	Gly	Ser	Ser	Arg	Gln	Gly	Ser	Pro
Gly	Ser	Val	Ser 195	Lys	Gln	Lys	Pro 200	Cys	Asp	Leu	Pro	Leu	Arg	Leu	Leu
Val	Pro	Thr	Gln	Phe	Val	Gly 215	Ala	Ile	Ile	Gly	Lys	Glu	Gly	Ala	Thr
Ile 225	Arg	Asn	Ile	Thr	Lys 230	Gln	Thr	Gln	Ser	Lys	Ile	Asp	Val	His	Arg
Lys	Glu	Asn	Ala	Gly 245	Ala	Ala	Glu	Lys	Ser	Ile	Thr	Ile	Leu	Ser	Thr
Pro	Glu	Gly	Thr 260	Ser	Ala	Ala	Cys	Lys	Ser	Ile	Leu	Glu	Ile	Met	His
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Leu	Ala	His	Asn	Asn	Phe	Val	Gly 295	Arg	Leu	Ile	Gly	Lys	Glu	Gly	Arg
Asn 305	Leu	Lys	Lys	Ile	Glu	Gln	Asp	Thr	Asp	Thr	Lys	Ile	Thr	Ile	Ser
Pro	Leu	Gln	Glu	Leu	Thr	Leu	Tyr	Asn	Pro	Glu	Arg	Thr	Ile	Thr	Val
Lys	Gly	Asn	Val 340	Glu	Thr	Cys	Ala	Lys	Ala	Glu	Glu	Glu	Ile	Met	Lys
Lys	Ile	Arg	Glu	Ser	Tyr	Glu	Asn	Asp	Ile	Ala	Ser	Met	Asn	Leu	Gln
Ala	His	Leu	Ile	Pro	Gly	Leu	Asn	Leu	Asn	Ala	Leu	Gly	Leu	Phe	Pro
Pro 385	Thr	Ser	Gly	Met	Pro	Pro	Pro	Thr	Ser	Gly	Pro	Pro	Ser	Ala	Met
Thr	Pro	Pro	Tyr	Pro	Gln	Phe	Glu	Gln	Ser	Glu	Thr	Glu	Thr	Val	His
Leu	Phe	Ile	Pro	Ala	Leu	Ser	Val	Gly	Ala	Ile	Ile	Gly	Lys	Gln	Gly
Gln	His	Ile	Lys	Gln	Leu	Ser	Arg	Phe	Ala	Gly	Ala	Ser	Ile	Lys	Ile
Ala	Pro	Ala	Glu	Ala	Pro	Asp	Ala	Lys	Val	Arg	Met	Val	Ile	Ile	Thr
Gly 465	Pro	Pro	Glu	Ala	Gln	Phe	Lys	Ala	Gln	Gly	Arg	Ile	Tyr	Gly	Lys
Ile	Lys	Glu	Glu	Asn	Phe	Val	Ser	Pro	Lys	Glu	Glu	Val	Lys	Leu	Glu

Ala His Ile Arg Val Pro Ser Phe Ala Ala Gly Arg Val Ile Gly Lys
 500 505 510
 Gly Gly Lys Thr Val Asn Glu Leu Gln Asn Leu Ser Ser Ala Glu Val
 515 520 525
 Val Val Pro Arg Asp Gln Thr Pro Asp Glu Asn Asp Gln Val Val Val
 530 535 540
 Lys Ile Thr Gly His Phe Tyr Ala Cys Gln Val Ala Gln Arg Lys Ile
 545 550 555 560
 Gln Glu Ile Leu Thr Gln Val Lys Gln His Gln Gln Gln Lys Ala Leu
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<210> 428

<211> 1764

<212> DNA

<213> Homo sapiens

<400> 428

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1764

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<210> 429

<211> 35

<212> DNA

1000700-14300

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			20					25					30		
Asn	Leu	Ile	Ser	Asn	Ile	Lys	Glu	Met	Ile	Thr	Glu	Ala	Ser	Phe	Tyr
		35					40					45			
Leu	Phe	Asn	Ala	Thr	Lys	Arg	Arg	Val	Phe	Phe	Arg	Asn	Ile	Lys	Ile
	50					55					60				
Leu	Ile	Pro	Ala	Thr	Trp	Lys	Ala	Asn	Asn	Asn	Ser	Lys	Ile	Lys	Gln
65					70					75					80
Glu	Ser	Tyr	Glu	Lys	Ala	Asn	Val	Ile	Val	Thr	Asp	Trp	Tyr	Gly	Ala
				85					90					95	
His	Gly	Asp	Asp	Pro	Tyr	Thr	Leu	Gln	Tyr	Arg	Gly	Cys	Gly	Lys	Glu
			100					105					110		
Gly	Lys	Tyr	Ile	His	Phe	Thr	Pro	Asn	Phe	Leu	Leu	Asn	Asp	Asn	Leu
		115					120					125			
Thr	Ala	Gly	Tyr	Gly	Ser	Arg	Gly	Arg	Val	Phe	Val	His	Glu	Trp	Ala
	130					135					140				
His	Leu	Arg	Trp	Gly	Val	Phe	Asp	Glu	Tyr	Asn	Asn	Asp	Lys	Pro	Phe
145					150					155					160
Tyr	Ile	Asn	Gly	Gln	Asn	Gln	Ile	Lys	Val	Thr	Arg	Cys	Ser	Ser	Asp
			165						170					175	
Ile	Thr	Gly	Ile	Phe	Val	Cys	Glu	Lys	Gly	Pro	Cys	Pro	Gln	Glu	Asn
			180					185					190		
Cys	Ile	Ile	Ser	Lys	Leu	Phe	Lys	Glu	Gly	Cys	Thr	Phe	Ile	Tyr	Asn
		195					200					205			
Ser	Thr	Gln	Asn	Ala	Thr	Ala	Ser	Ile	Met	Phe	Met	Gln	Ser	Leu	Ser
	210					215					220				
Ser	Val	Val	Glu	Phe	Cys	Asn	Ala	Ser	Thr	His	Asn	Gln	Glu	Ala	Pro
225					230					235					240
Asn	Leu	Gln	Asn	Gln	Met	Cys	Ser	Leu	Arg	Ser	Ala	Trp	Asp	Val	Ile
			245						250					255	
Thr	Asp	Ser	Ala	Asp	Phe	His	His	Ser	Phe	Pro	Met	Asn	Gly	Thr	Glu
			260					265					270		
Leu	Pro	Pro	Pro	Pro	Thr	Phe	Ser	Leu	Val	Glu	Ala	Gly	Asp	Lys	Val
		275					280					285			
Val	Cys	Leu	Val	Leu	Asp	Val	Ser	Ser	Lys	Met	Ala	Glu	Ala	Asp	Arg
	290					295					300				
Leu	Leu	Gln	Leu	Gln	Gln	Ala	Ala	Glu	Phe	Tyr	Leu	Met	Gln	Ile	Val
305					310					315					320

Glu	Ile	His	Thr	Phe	Val	Gly	Ile	Ala	Ser	Phe	Asp	Ser	Lys	Gly	Glu
				325					330					335	
Ile	Arg	Ala	Gln	Leu	His	Gln	Ile	Asn	Ser	Asn	Asp	Asp	Arg	Lys	Leu
			340					345					350		
Leu	Val	Ser	Tyr	Leu	Pro	Thr	Thr	Val	Ser	Ala	Lys	Thr	Asp	Ile	Ser
		355					360					365			
Ile	Cys	Ser	Gly	Leu	Lys	Lys	Gly	Phe	Glu	Val	Val	Glu	Lys	Leu	Asn
	370					375					380				
Gly	Lys	Ala	Tyr	Gly	Ser	Val	Met	Ile	Leu	Val	Thr	Ser	Gly	Asp	Asp
385					390					395					400
Lys	Leu	Leu	Gly	Asn	Cys	Leu	Pro	Thr	Val	Leu	Ser	Ser	Gly	Ser	Thr
				405					410					415	
Ile	His	Ser	Ile	Ala	Leu	Gly	Ser	Ser	Ala	Ala	Pro	Asn	Leu	Glu	Glu
			420					425					430		
Leu	Ser	Arg	Leu	Thr	Gly	Gly	Leu	Lys	Phe	Phe	Val	Pro	Asp	Ile	Ser
		435					440					445			
Asn	Ser	Asn	Ser	Met	Ile	Asp	Ala	Phe	Ser	Arg	Ile	Ser	Ser	Gly	Thr
	450					455					460				
Gly	Asp	Ile	Phe	Gln	Gln	His	Ile	Gln	Leu	Glu	Ser	Thr	Gly	Glu	Asn
465					470					475					480
Val	Lys	Pro	His	His	Gln	Leu	Lys	Asn	Thr	Val	Thr	Val	Asp	Asn	Thr
				485					490					495	
Val	Gly	Asn	Asp	Thr	Met	Phe	Leu	Val	Thr	Trp	Gln	Ala	Ser	Gly	Pro
			500					505					510		
Pro	Glu	Ile	Ile	Leu	Phe	Asp	Pro	Asp	Gly	Arg	Lys	Tyr	Tyr	Thr	Asn
		515					520					525			
Asn	Phe	Ile	Thr	Asn	Leu	Thr	Phe	Arg	Thr	Ala	Ser	Leu	Trp	Ile	Pro
	530					535					540				
Gly	Thr	Ala	Lys	Pro	Gly	His	Trp	Thr	Tyr	Thr	Leu	Asn	Asn	Thr	His
545					550					555					560
His	Ser	Leu	Gln	Ala	Leu	Lys	Val	Thr	Val	Thr	Ser	Arg	Ala	Ser	Asn
				565					570					575	
Ser	Ala	Val	Pro	Pro	Ala	Thr	Val	Glu	Ala	Phe	Val	Glu	Arg	Asp	Ser
			580					585					590		
Leu	His	Phe	Pro	His	Pro	Val	Met	Ile	Tyr	Ala	Asn	Val	Lys	Gln	Gly
		595					600					605			
Phe	Tyr	Pro	Ile	Leu	Asn	Ala	Thr	Val	Thr	Ala	Thr	Val	Glu	Pro	Glu
	610					615						620			
Thr	Gly	Asp	Pro	Val	Thr	Leu	Arg	Leu	Leu	Asp	Asp	Gly	Ala	Gly	Ala
625					630					635					640
Asp	Val	Ile	Lys	Asn	Asp	Gly	Ile	Tyr	Ser	Arg	Tyr	Phe	Phe	Ser	Phe
				645					650					655	
Ala	Ala	Asn	Gly	Arg	Tyr	Ser	Leu	Lys	Val	His	Val	Asn	His	Ser	Pro
			660					665					670		
Ser	Ile	Ser	Thr	Pro	Ala	His	Ser	Ile	Pro	Gly	Ser	His	Ala	Met	Tyr
		675					680					685			
Val	Pro	Gly	Tyr	Thr	Ala	Asn	Gly	Asn	Ile	Gln	Met	Asn	Ala	Pro	Arg
	690					695					700				
Lys	Ser	Val	Gly	Arg	Asn	Glu	Glu	Glu	Arg	Lys	Trp	Gly	Phe	Ser	Arg
705					710					715					720
Val	Ser	Ser	Gly	Gly	Ser	Phe	Ser	Val	Leu	Gly	Val	Pro	Ala	Gly	Pro
				725					730					735	
His	Pro	Asp	Val	Phe	Pro	Pro	Cys	Lys	Ile	Ile	Asp	Leu	Glu	Ala	Val
			740					745					750		

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Lys Val Glu Glu Glu Leu Thr Leu Ser Trp Thr Ala Pro Gly Glu Asp
 755 760 765
 Phe Asp Gln Gly Gln Ala Thr Ser Tyr Glu Ile Arg Met Ser Lys Ser
 770 775 780
 Leu Gln Asn Ile Gln Asp Asp Phe Asn Asn Ala Ile Leu Val Asn Thr
 785 790 795 800
 Ser Lys Arg Asn Pro Gln Gln Ala Gly Ile Arg Glu Ile Phe Thr Phe
 805 810 815
 Ser Pro Gln Ile Ser Thr Asn Gly Pro Glu His Gln Pro Asn Gly Glu
 820 825 830
 Thr His Glu Ser His Arg Ile Tyr Val Ala Ile Arg Ala Met Asp Arg
 835 840 845
 Asn Ser Leu Gln Ser Ala Val Ser Asn Ile Ala Gln Ala Pro Leu Phe
 850 855 860
 Ile Pro Pro Asn Ser Asp Pro Val Pro Ala Arg Asp Tyr Leu Ile Leu
 865 870 875 880
 Lys

<210> 431
 <211> 2646
 <212> DNA
 <213> Homo sapiens

<400> 431
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 atgataactg aagcttcatt ttacctatct aatgctacca agagaagagt atttttcaga 180
 aatataaaga ttttaatacc tgccacatgg aaagctaata ataacagcaa aataaaacaa 240
 gaatcatatg aaaaggcaaa tgtcatagtg actgactggg atggggcaca tggagatgat 300
 ccatacaccc tacaatacag aggggtgtgga aaagagggaa aatacattca tttcacacct 360
 aatttcctac tgaatgataa cttaacagct ggctacggat cacgaggccg agtggtttgtc 420
 catgaatggg cccacctccg ttgggggtgtg ttcgatgagt ataacaatga caaacctttc 480
 tacataaatg ggcaaaatca aattaaagtg acaagggtgt catctgacat cacaggcatt 540
 tttgtgtgtg aaaaagggtc ttgcccccaa gaaaactgta ttattagtaa gcttttttaa 600
 gaaggatgca cttttatcta caatagcacc caaaatgcaa ctgcatcaat aatgttcatt 660
 caaagtttat cttctgtggt tgaattttgt aatgcaagta ccacacaacca agaagcacca 720
 aacctacaga accagatgtg cagcctcaga agtgcatggg atgtaatcac agactctgct 780
 gactttcacc acagctttcc catgaacggg actgagcttc cacctcctcc cacattctcg 840
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 gaggtgaca gactccttca actacaacaa gccgcagaat tttatttgat gcagattgtt 960
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 ctacaccaaa ttaacagcaa tgatgatcga aagttgctgg tttcatatct gccaccact 1080
 gtatcagcta aaacagacat cagcatttgt tcagggttca agaaaggatt tgaggtggtt 1140
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 gatggacgaa aatactacac aaataatttt atcaccaatc taacttttcg gacagctagt 1620
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gttgagccag agactggaga tcctgttacg ctgagactcc ttgatgatgg agcaggtgct 1920
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agatatagct tgaaagtgca tgtcaatcac tctcccagca taagcacccc agcccactct 2040
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gttgcaatac gagcaatgga taggaactcc ttacagtctg ctgtatctaa cattgccag 2580
gcgctctgt ttattcccc caattctgat cctgtacctg ccagagatta tcttatattg 2640
aaataa 2646

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<210> 432
<211> 36
<212> DNA
<213> Artificial Sequence

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<220>
<223> PCR primer

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<400> 432
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36

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<210> 433
<211> 371
<212> PRT
<213> Homo sapiens

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<400> 433
Met Gln His His His His His Trp Gln Pro Leu Phe Phe Lys Trp
 1          5          10          15
Leu Leu Ser Cys Cys Pro Gly Ser Ser Gln Ile Ala Ala Ala Ala Ser
 20          25          30
Thr Gln Pro Glu Asp Asp Ile Asn Thr Gln Arg Lys Lys Ser Gln Glu
 35          40          45
Lys Met Arg Glu Val Thr Asp Ser Pro Gly Arg Pro Arg Glu Leu Thr
 50          55          60
Ile Pro Gln Thr Ser Ser His Gly Ala Asn Arg Phe Val Pro Lys Ser
 65          70          75          80
Lys Ala Leu Glu Ala Val Lys Leu Ala Ile Glu Ala Gly Phe His His
 85          90          95
Ile Asp Ser Ala His Val Tyr Asn Asn Glu Glu Gln Val Gly Leu Ala
100          105          110
Ile Arg Ser Lys Ile Ala Asp Gly Ser Val Lys Arg Glu Asp Ile Phe
115          120          125
Tyr Thr Ser Lys Leu Trp Ser Asn Ser His Arg Pro Glu Leu Val Arg
130          135          140
Pro Ala Leu Glu Arg Ser Leu Lys Asn Leu Gln Leu Asp Tyr Val Asp

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145 150 155 160
 Leu Tyr Leu Ile His Phe Pro Val Ser Val Lys Pro Gly Glu Glu Val
 165 170 175
 Ile Pro Lys Asp Glu Asn Gly Lys Ile Leu Phe Asp Thr Val Asp Leu
 180 185 190
 Cys Ala Thr Trp Glu Ala Met Glu Lys Cys Lys Asp Ala Gly Leu Ala
 195 200 205
 Lys Ser Ile Gly Val Ser Asn Phe Asn His Arg Leu Leu Glu Met Ile
 210 215 220
 Leu Asn Lys Pro Gly Leu Lys Tyr Lys Pro Val Cys Asn Gln Val Glu
 225 230 235 240
 Cys His Pro Tyr Phe Asn Gln Arg Lys Leu Leu Asp Phe Cys Lys Ser
 245 250 255
 Lys Asp Ile Val Leu Val Ala Tyr Ser Ala Leu Gly Ser His Arg Glu
 260 265 270
 Glu Pro Trp Val Asp Pro Asn Ser Pro Val Leu Leu Glu Asp Pro Val
 275 280 285
 Leu Cys Ala Leu Ala Lys Lys His Lys Arg Thr Pro Ala Leu Ile Ala
 290 295 300
 Leu Arg Tyr Gln Leu Gln Arg Gly Val Val Val Leu Ala Lys Ser Tyr
 305 310 315 320
 Asn Glu Gln Arg Ile Arg Gln Asn Val Gln Val Phe Glu Phe Gln Leu
 325 330 335
 Thr Ser Glu Glu Met Lys Ala Ile Asp Gly Leu Asn Arg Asn Val Arg
 340 345 350
 Tyr Leu Thr Leu Asp Ile Phe Ala Gly Pro Pro Asn Tyr Pro Phe Ser
 355 360 365
 Asp Glu Tyr
 370

<210> 434
 <211> 1119
 <212> DNA
 <213> Homo sapiens

<400> 434
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 acacagagga agaagagtca ggaaaagatg agagaagtta cagactctcc tgggcgaccc 180
 cgagagctta ccattcctca gacttcttca catggtgcta acagatttgt tcctaaaagt 240
 aaagctctag aggccgtcaa attggcaata gaagccgggt tccaccatat tgattctgca 300
 catgtttaca ataatgagga gcagggttga ctggccatcc gaagcaagat tgcagatggc 360
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 gagttgggcc gaccagcctt ggaaagggtc ctgaaaaatc ttcaattgga ctatgttgac 480
 ctctatctta ttcatthtcc agtgtctgta aagccagggt aggaagtgat cccaaaagat 540
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 ctggttgcc atagtgtct gggatcccat cgagaagaac catgggtgga cccgaactcc 840
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 gccctgattg ccctgcgcta ccagctgcag cgtgggggtt tggtcctggc caagagctac 960
 aatgagcagc gcatcagaca gaacgtgcag gtgtttgaat tccagttgac ttcagaggag 1020

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atgaaagcca tagatggcct aaacagaaat gtgcgatatt tgacccttga tatttttgct 1080
ggcccccta attatccatt ttctgatgaa tattaatga 1119

<210> 435
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 435
ggatccgccg ccaccatgac atccattcga gctgta 36

<210> 436
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 436
gtcgactcag ctggaccaca gccgcag 27

<210> 437
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 437
ggatccgccg ccaccatgga ctcttgacc ttctgct 37

<210> 438
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 438
gtcgactcag aaatcctttc tcttgac 27

<210> 439
<211> 933
<212> DNA
<213> Homo sapiens

<400> 439
atggactcct ggaccttctg ctgtgtgtcc ctttgcatcc tggtagcaaa gcacacagat 60

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gctggagtta	tccagtcacc	ccggcacgag	gtgacagaga	tgggacaaga	agtgactctg	120
agatgtaaac	caatttcagg	acacgactac	cttttctggt	acagacagac	catgatgcgg	180
ggactggagt	tgctcattta	ctttaacaac	aacgttccga	tagatgattc	agggatgccc	240
gaggatcgat	tctcagctaa	gatgcctaata	gcatcattct	ccactctgaa	gatccagccc	300
tcagaaccca	gggactcagc	tgtgtacttc	tgtgccagca	gtttagttag	agcaaact	360
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cagaaccccc	gcaaccactt	ccgctgtcaa	gtccagttct	acgggctctc	ggagaatgac	720
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ctctatgaga	tctgtctagg	gaaggccacc	ctgtatgctg	tgctggtcag	cgcccttgtg	900
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<210> 440

<211> 822

<212> DNA

<213> Homo sapiens

<400> 440

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gagaatgtgg	agcagcatcc	ttcaaccctg	agtgtccagg	aggagacag	cgctgttata	120
aagtgtactt	attcagacag	tgctcaaac	tacttccctt	ggtataagca	agaacttgga	180
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cccagcccag	aaagttcctg	tgatgtcaag	ctggtcgaga	aaagctttga	aacagatacg	720
aacctaaact	ttcaaaaacct	gtcagtgatt	gggttccgaa	tcctcctcct	gaaagtggcc	780
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<210> 441

<211> 2311

<212> DNA

<213> Homo sapiens

<400> 441

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aaccgcccag	agtagaagat	ggattggggc	acgctgcaga	cgatcctggg	gggtgtgaac	240
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gtggcctacc	ggagacatga	gaagaagagg	aagttcatca	agggggagat	aaagagtga	540
tttaaggaca	tcgaggagat	caaaaccag	aaggtccgca	tcgaaggctc	cctgtgggtg	600

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<210> 442

<211> 226

<212> PRT

<213> Homo sapiens

<400> 442

Met Asp Trp Gly Thr Leu Gln Thr Ile Leu Gly Gly Val Asn Lys His
5 10 15

Ser Thr Ser Ile Gly Lys Ile Trp Leu Thr Val Leu Phe Ile Phe Arg
20 25 30

Ile Met Ile Leu Val Val Ala Ala Lys Glu Val Trp Gly Asp Glu Gln
35 40 45

Ala Asp Phe Val Cys Asn Thr Leu Gln Pro Gly Cys Lys Asn Val Cys
50 55 60

Tyr Asp His Tyr Phe Pro Ile Ser His Ile Arg Leu Trp Ala Leu Gln
65 70 75 80

Leu Ile Phe Val Ser Ser Pro Ala Leu Leu Val Ala Met His Val Ala
85 90 95

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Tyr Arg Arg His Glu Lys Lys Arg Lys Phe Ile Lys Gly Glu Ile Lys
 100 105 110
 Ser Glu Phe Lys Asp Ile Glu Glu Ile Lys Thr Gln Lys Val Arg Ile
 115 120 125
 Glu Gly Ser Leu Trp Trp Thr Tyr Thr Ser Ser Ile Phe Phe Arg Val
 130 135 140
 Ile Phe Glu Ala Ala Phe Met Tyr Val Phe Tyr Val Met Tyr Asp Gly
 145 150 155 160
 Phe Ser Met Gln Arg Leu Val Lys Cys Asn Ala Trp Pro Cys Pro Asn
 165 170 175
 Thr Val Asp Cys Phe Val Ser Arg Pro Thr Glu Lys Thr Val Phe Thr
 180 185 190
 Val Phe Met Ile Ala Val Ser Gly Ile Cys Ile Leu Leu Asn Val Thr
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 210 215 220
 Pro Val
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<210> 443
 <211> 23
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 <213> Homo sapiens

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Ile Ser Arg Pro Gly Cys Gly
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<220>
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<400> 445
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30

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 <211> 579
 <212> PRT
 <213> Homo sapiens

<400> 446
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 35 40 45
 Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
 50 55 60
 Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
 65 70 75 80
 Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
 85 90 95
 Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
 100 105 110
 Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
 115 120 125
 Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
 130 135 140
 Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala
 145 150 155 160
 Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
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 180 185 190
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225					230					235					240
Glu	Lys	Ser	Ile	Thr	Ile	Leu	Ser	Thr	Pro	Glu	Gly	Thr	Ser	Ala	Ala
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Cys	Lys	Ser	Ile	Leu	Glu	Ile	Met	His	Lys	Glu	Ala	Gln	Asp	Ile	Lys
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Phe	Thr	Glu	Glu	Ile	Pro	Leu	Lys	Ile	Leu	Ala	His	Asn	Asn	Phe	Val
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Gly	Arg	Leu	Ile	Gly	Lys	Glu	Gly	Arg	Asn	Leu	Lys	Lys	Ile	Glu	Gln
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Tyr	Asn	Pro	Glu	Arg	Thr	Ile	Thr	Val	Lys	Gly	Asn	Val	Glu	Thr	Cys
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Glu	Gln	Ser	Glu	Thr	Glu	Thr	Val	His	Leu	Phe	Ile	Pro	Ala	Leu	Ser
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Ala	Lys	Val	Arg	Met	Val	Ile	Ile	Thr	Gly	Pro	Pro	Glu	Ala	Gln	Phe
	450					455				460					
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Ser	Pro	Lys	Glu	Glu	Val	Lys	Leu	Glu	Ala	His	Ile	Arg	Val	Pro	Ser
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1000700-143001

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Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr
515 520 525

Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr
530 535 540

Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val
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Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser
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Arg Arg Lys

<210> 447

<211> 1743

<212> DNA

<213> Homo sapiens

<400> 447

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ctagtccagt atggagtggg ggagagctgt gagcaagtga aactgactc ggaaactgca 360
gttgtaaatt taacctattc cagtaaggac caagctagac aagcactaga caaactgaat 420
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<212> DNA
<213> Artificial Sequence

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<223> PCR primer

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35 40 45
Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
50 55 60
Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
65 70 75 80
Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
85 90 95
Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
100 105 110
Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
115 120 125
Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
130 135 140
Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala
145 150 155 160
Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
165 170 175

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Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys
 180 185 190
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 195 200 205
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 210 215 220
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 225 230 235 240
 Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala Ala
 245 250 255
 Cys Lys Ser Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys
 260 265 270
 Phe Thr Glu Glu Ile Pro Leu Lys Ile Leu Ala His Asn Asn Phe Val
 275 280 285
 Gly Arg Leu Ile Gly Lys Glu Gly Arg Asn Leu Lys Lys Ile Glu Gln
 290 295 300
 Asp Thr Asp Thr Lys Ile Thr Ile Ser Pro Leu Gln Glu Leu Thr Leu
 305 310 315 320
 Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Asn Val Glu Thr Cys
 325 330 335
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 340 345 350
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 355 360 365
 Asn Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro
 370 375 380
 Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro Pro Tyr Pro Gln Phe
 385 390 395 400
 Glu Gln Ser Glu Thr Glu Thr Val His Leu Phe Ile Pro Ala Leu Ser
 405 410 415
 Val Gly Ala Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser
 420 425 430
 Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala Glu Ala Pro Asp
 435 440 445
 Ala Lys Val Arg Met Val Ile Ile Thr Gly Pro Pro Glu Ala Gln Phe
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465 470 475 480
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 485 490 495
 Phe Ala Ala Gly Arg Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu
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 Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr
 515 520 525
 Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr
 530 535 540
 Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val
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Arg Arg Lys

<210> 450

<211> 1743

<212> DNA

<213> Homo sapiens

<400> 450

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Lys Leu Gly Phe Pro Ala Ala Lys Glu
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<210> 452
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 452
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 5 10 15

Val Pro Met Asp Gly Ile Ser Val Ala
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<210> 453
 <211> 16
 <212> PRT
 <213> Homo sapiens

<400> 453
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 5 10 15

<210> 454
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 454
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Ile Thr Gly Pro

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20

<210> 455
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Arg Arg Gly Leu
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<210> 456
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<400> 456
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Glu Glu Ile Met
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<210> 457
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 457
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Ala Leu Ser Gly
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<210> 458
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 458
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Val Leu Asp Ser
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 <211> 20
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<400> 459
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Gln Arg Gly Ser
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<210> 460
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 <212> PRT
 <213> Homo sapiens

<400> 460
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Ile Leu Ser Thr
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<210> 461
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 461
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Cys Ala Lys Ala
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<210> 462
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 462
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 5 10 15

Ala Ser Met Asn
 20

<210> 463
 <211> 20

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Thr Ser Gly Pro
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          5                      10                      15

Ile Thr Gly Pro
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Glu
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<400> 466
Phe Val Asp Cys Pro Asp Glu Ser Trp Ala Leu
          5              10
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33

<212> PRT

<213> Homo sapiens

<400> 468

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Gly Arg Arg Gly Leu Gly Gln Arg
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<210> 469

<211> 24

<212> PRT

<213> Homo sapiens

<400> 469

Ile Pro Asp Glu Thr Ala Ala Gln Gln Asn Pro Ser Pro Gln Leu Arg
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Gly Arg Arg Gly Pro Gly Gln Arg
 20

1000700-1300